THE AMERICAN ARCHITECT

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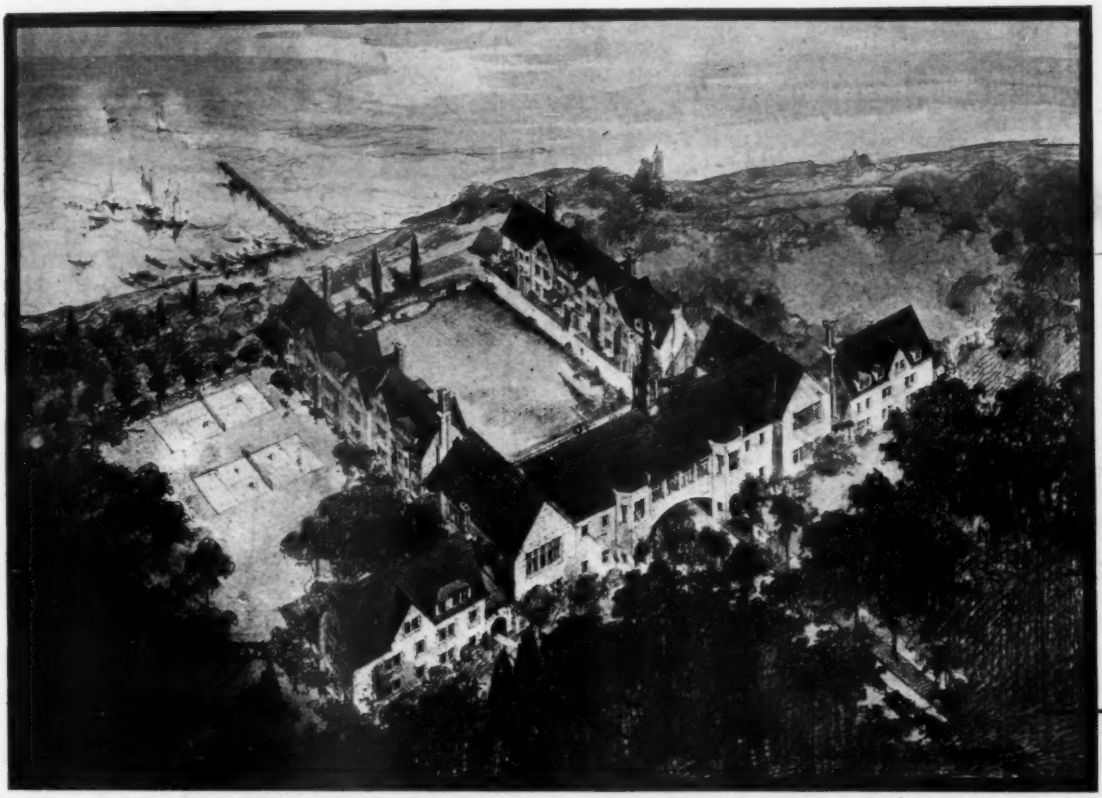

THE DETROIT ED. CO.
AUG 31 1920

THE GARRETT BIBLICAL INSTITUTE, EVANSTON, ILLINOIS
HOLABIRD & ROCHE, *ARCHITECTS*

The Work of Holabird & Roche, Architects

Part II

THE combining of a library with space devoted to business purposes is a rather unusual problem, as libraries are generally housed in isolated buildings. The design of a building devoted to such uses requires that both purposes be expressed. This has been done in the John Crerar Library Building now being erected in Chicago. As this library is a reference library only, it is necessary that it be located in the business district in order to be of easy access to the professional and business men who use it. Its location makes it possible to use a very large portion of the building for office and commercial purposes. At present the library contains 425,000 volumes and more than 150,000 pamphlets. That portion of the building now under construction provides space for housing 650,000 volumes and seats for 400 readers. The books are apportioned to various interests in the following

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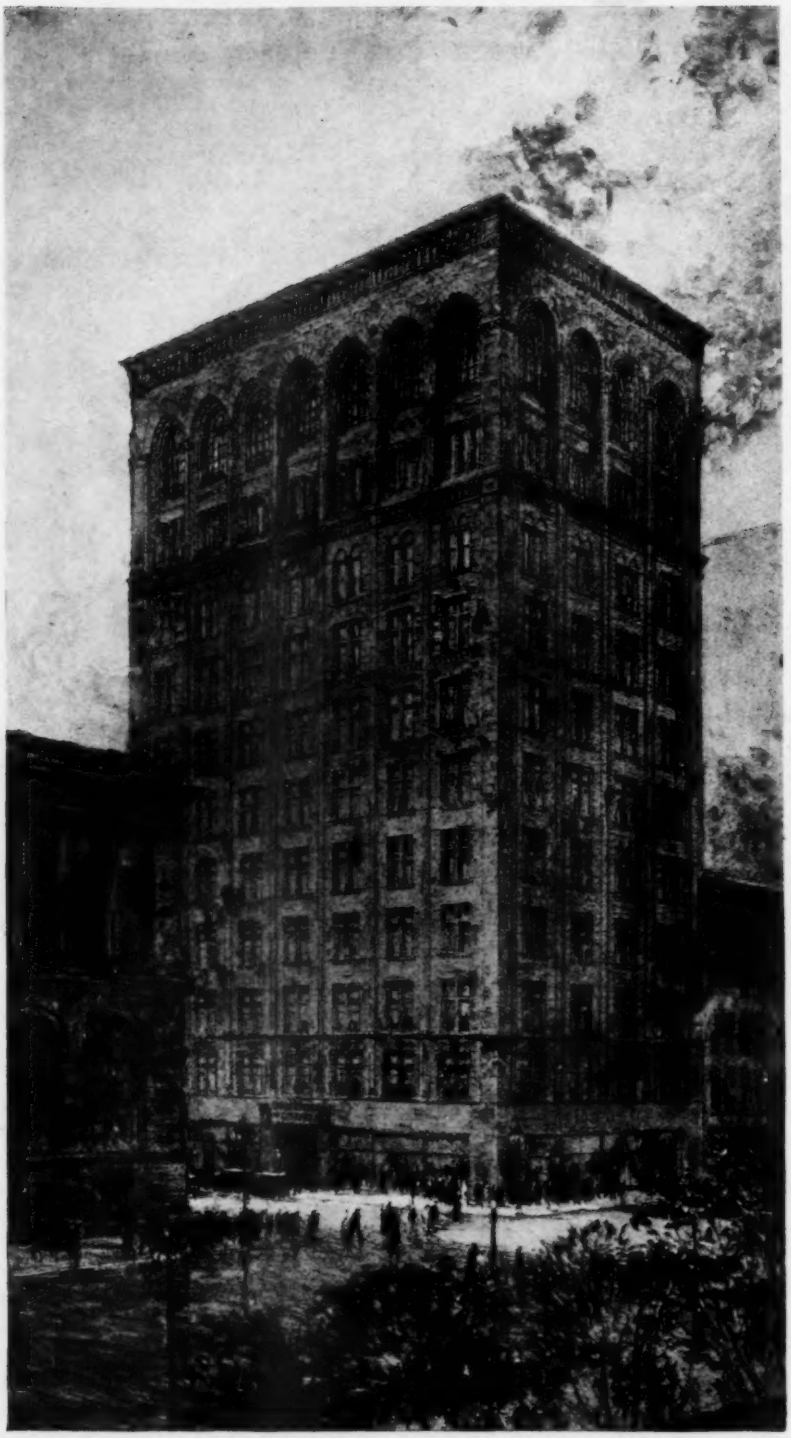
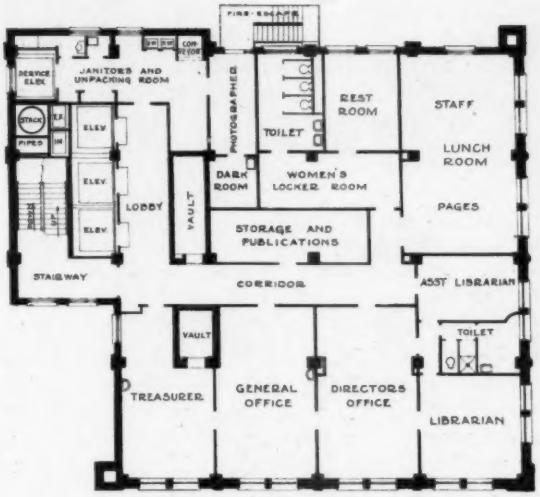
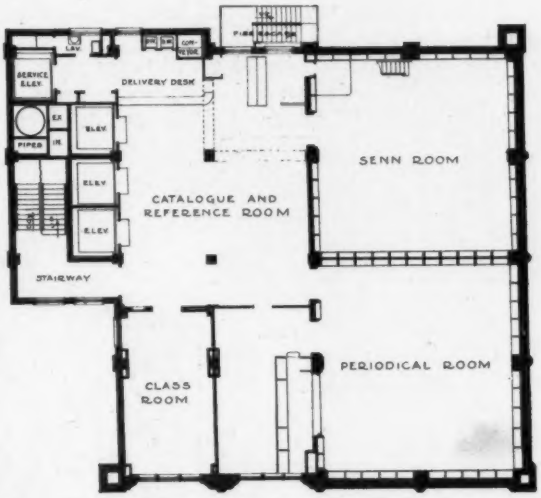
XUM



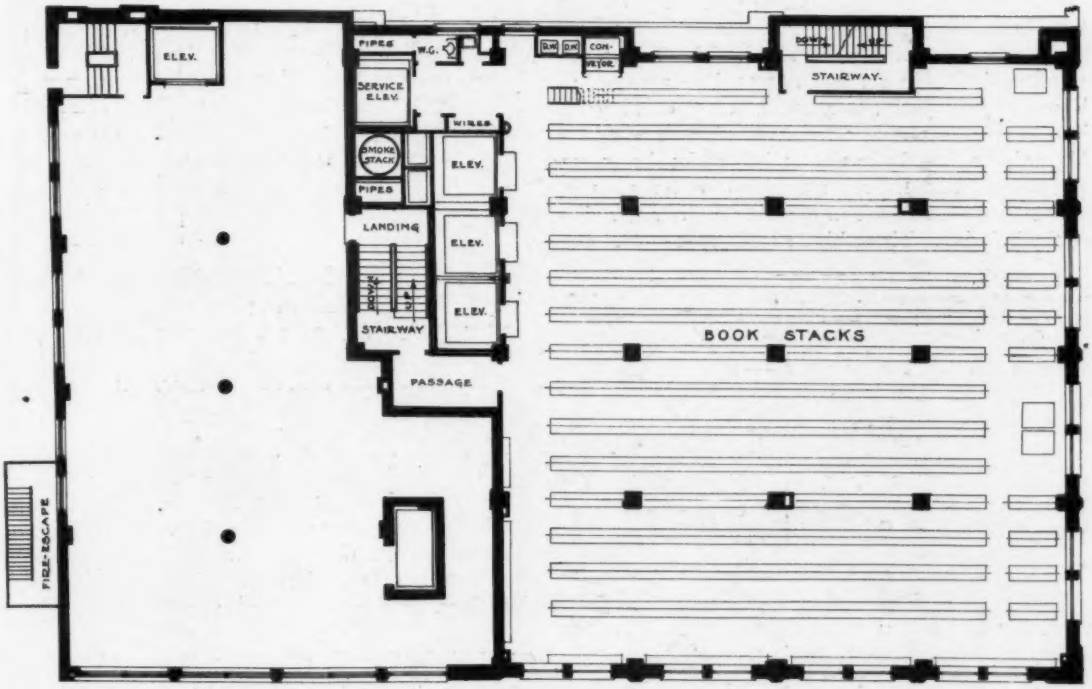
THE JOHN CRERAR LIBRARY, CHICAGO, ILLINOIS
HOLABIRD & ROCHE, *ARCHITECTS*



ELEVENTH FLOOR PLAN



TWELFTH FLOOR PLAN



SEVENTH FLOOR PLAN

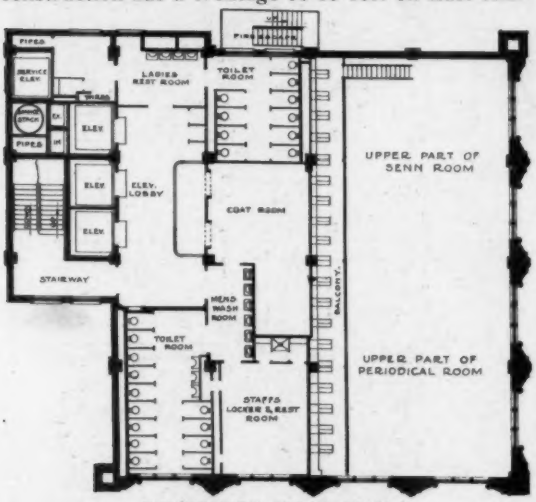
THE JOHN CRERAR LIBRARY, CHICAGO, ILLINOIS

HOLABIRD & ROCHE, *ARCHITECTS*

XUM

order to physicians, engineers, chemists, teachers and business men.

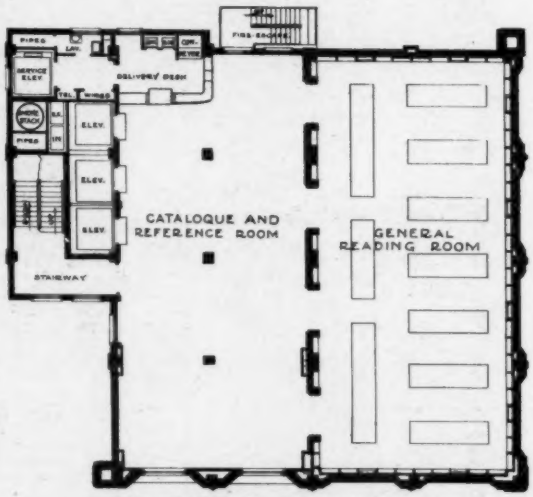
When completed the building will cover an area of 127 feet by 135 feet. The portion now under construction has a frontage of 85 feet on East Randolph Street and 78 feet on North Michigan Boulevard. It is fifteen stories in height, being limited to that height by the building ordinance in effect at the time construction was started. The building is faced with Bedford stone designed in a modified Romanesque style; the entrance lobby opening on Randolph Street is also finished in Bedford stone. The caisson foundations extend to rock; the frame is of steel, and floor construction of hollow tile. There is no wood used in the construction or finish of the building. Three high speed passenger elevators serve the present portion of the building, the library is provided with a service elevator, two dumb-waiters and a back conveyor.



THIRTEENTH FLOOR PLAN

This building is in a very favorable position on the west side of Michigan Boulevard and immediately north of the lower Public Library. The John Crerar Library, with the University Club, Monroe and McCormick Buildings, are the contributions of this architectural organization to that great thoroughfare.

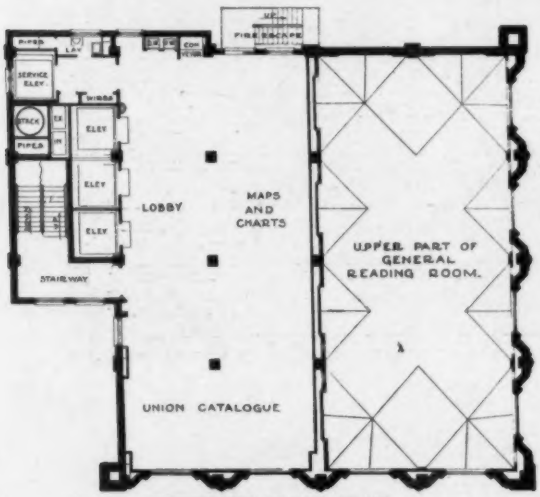
Transportation is one of the most important factors in office building service. A combination of a high speed elevator, with easy access thereto, is necessary to satisfactory elevator transportation. The latter element of the service is influenced by the plan. In the McCormick Building there are eleven passenger elevators so arranged that the passenger on any floor can station himself within a very short



FOURTEENTH FLOOR PLAN

THE JOHN CRERAR LIBRARY, CHICAGO, ILLINOIS

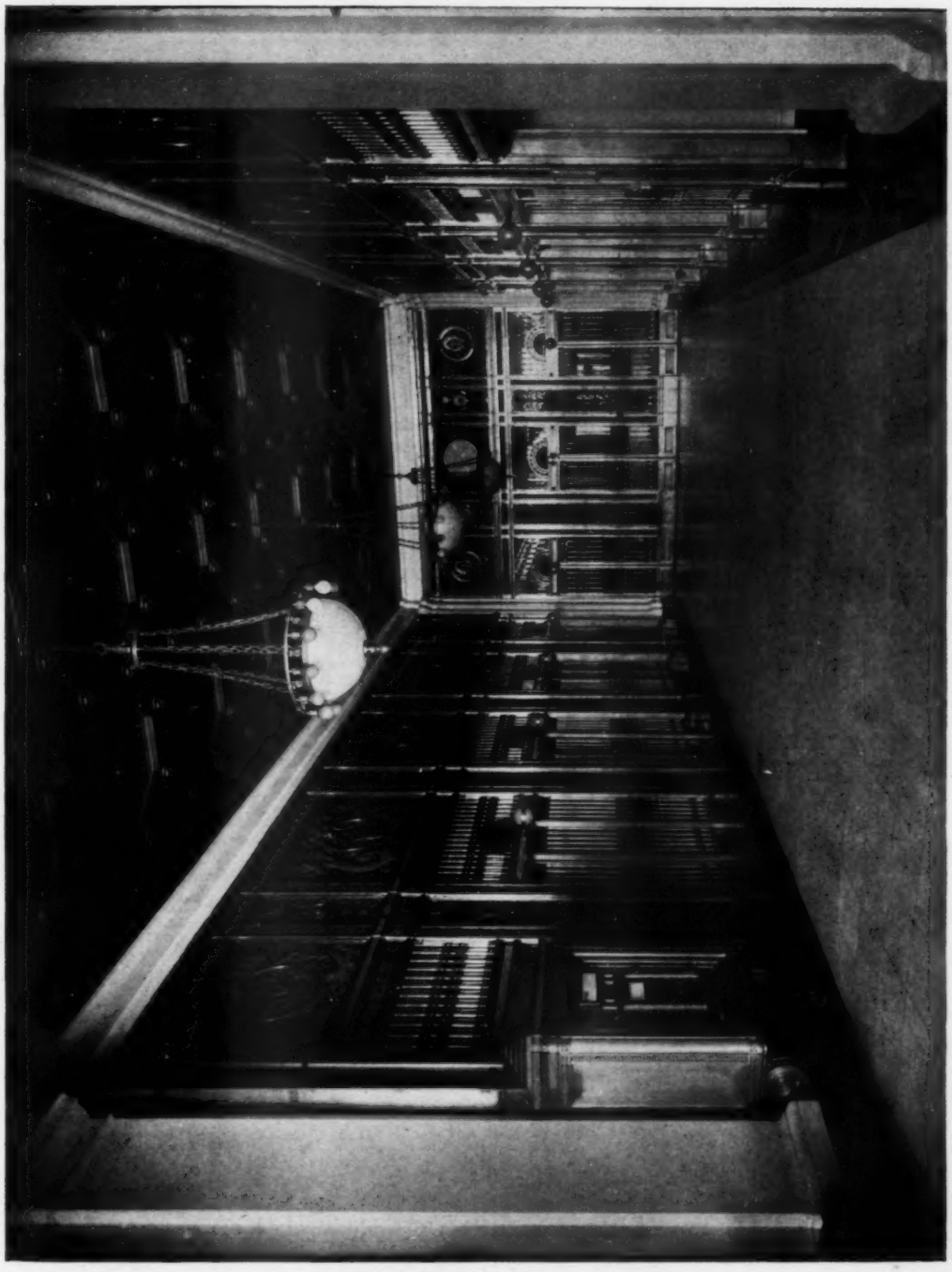
HOLABIRD & ROCHE, *ARCHITECTS*



FIFTEENTH FLOOR PLAN

distance of any elevator. This materially shortens the stops at each floor where the time is generally lost. It will be seen that the best arrangement is to place the elevators about three sides of the hall, making the hall as small as possible. The service in this building is satisfactory and each elevator serves 33,500 square feet of rental office area above the first floor.

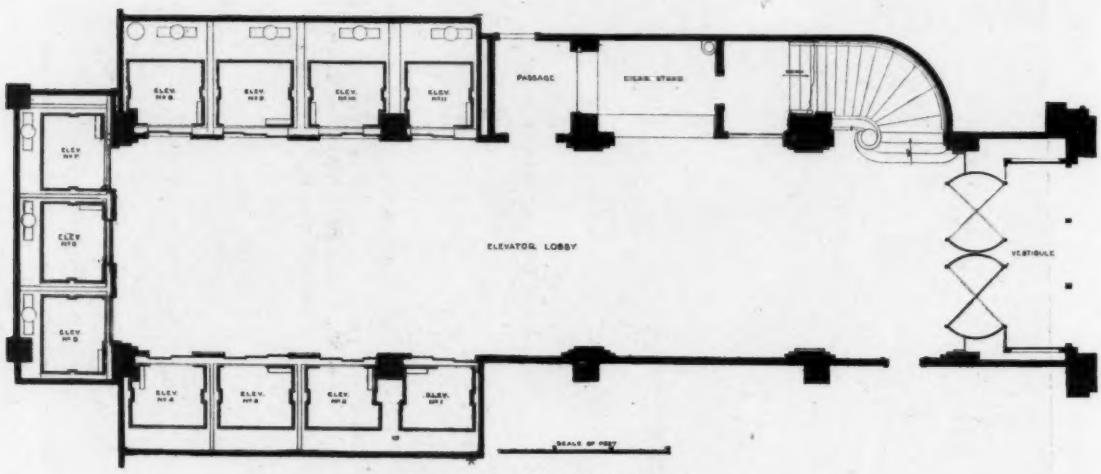
THE McCormick Building faces 183 feet on South Michigan Boulevard and extends 172 feet on East Van Buren Street to an 18-foot alley, with light on three sides. It is usual with buildings of this kind and size to use an enclosed interior



FIRST FLOOR ELEVATOR LOBBY

McCORMICK BUILDING, CHICAGO, ILLINOIS

HOLABIRD & ROCHE, *ARCHITECTS*

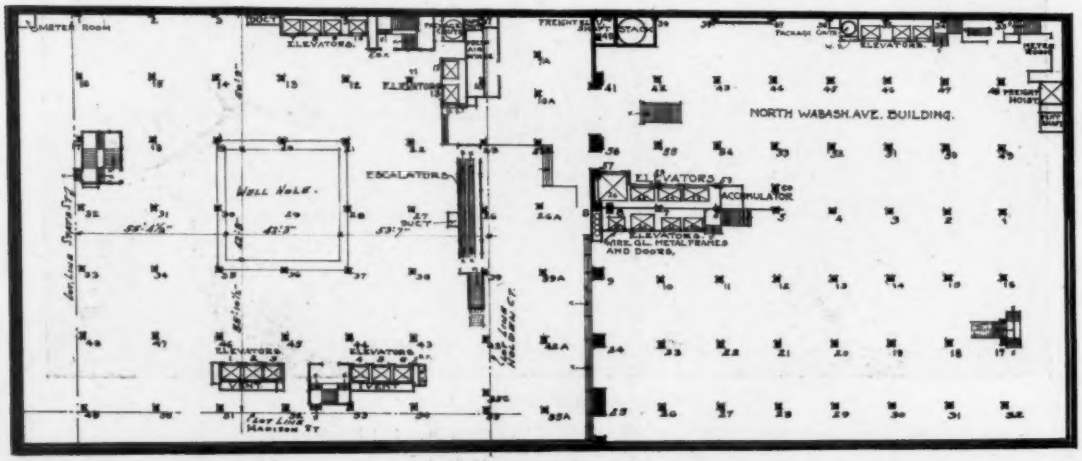


FIRST FLOOR ELEVATOR LOBBY
McCORMICK BUILDING, CHICAGO, ILLINOIS
HOLABIRD & ROCHE, *ARCHITECTS*

court with offices facing the alley. In this plan an open interior court is used and excellent light obtained in the court rooms. With no obstructions on the east side of Michigan Boulevard, the light penetrates farther into the buildings on the west side than in any other location in Chicago and the offices facing that street are made unusually deep.

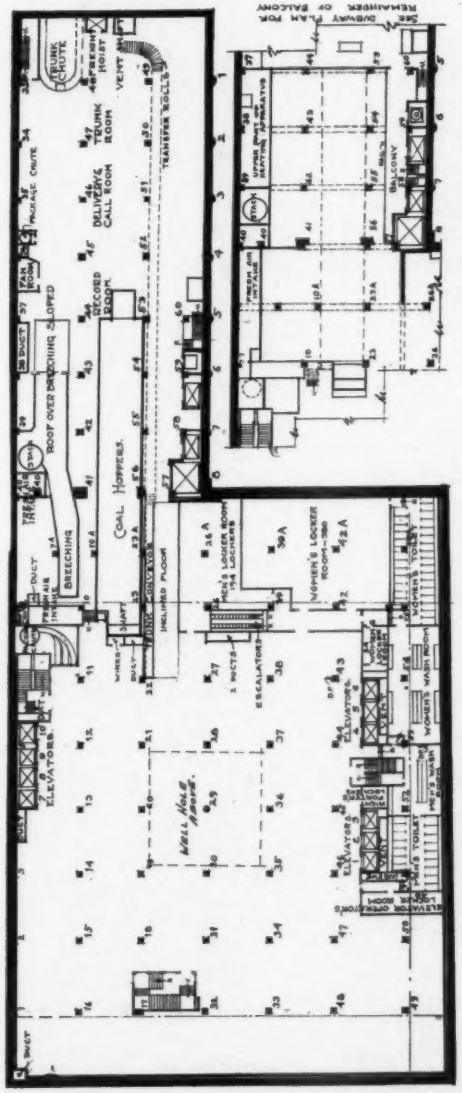
The building is placed on a lot area of 31,543 square feet, of which 5,358 square feet is court area leaving 26,185 square feet of typical floor area and 19,469 square feet of typical floor renting area. In percentages the court area is 16.9 per cent. of the lot area; the typical floor building area is 83.1 per cent. of the lot area; the typical floor renting area is 61.8 per cent. of the lot area; the typical floor renting area is 74.4 per cent. of the typical floor building area. The cubic contents of the building is 8,325,282 cubic feet, and cost of construction was 36 cents per cubic foot.

THE Hotel La Salle Garage is 5 stories and basement in height, 80 feet wide and 180 feet long, facing on West Washington Street and extending through to Calhoun Place. All of the floors are used for storage of automobiles, which are driven to each floor on an inclined driveway, semi-eliptical in plan, which has a rise of 14 feet in 100-foot run. This grade has been found satisfactory for cars on second



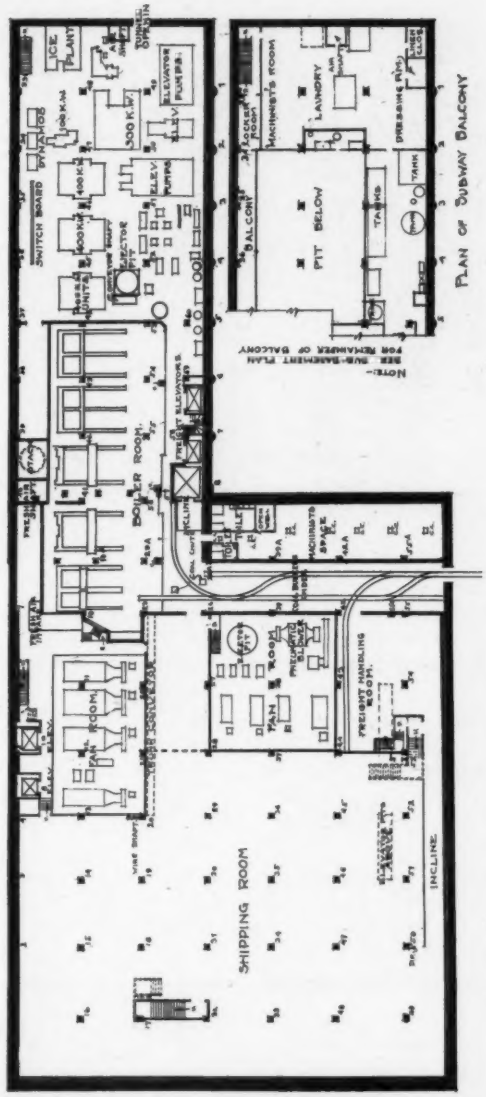
BASEMENT FLOOR PLAN
MANDEL BROTHERS' STORE BUILDING, CHICAGO, ILLINOIS
HOLABIRD & ROCHE, *ARCHITECTS*

MANDEL BROTHERS' STORE
BUILDING, CHICAGO, ILLINOIS



SUB-BASEMENT PLAN

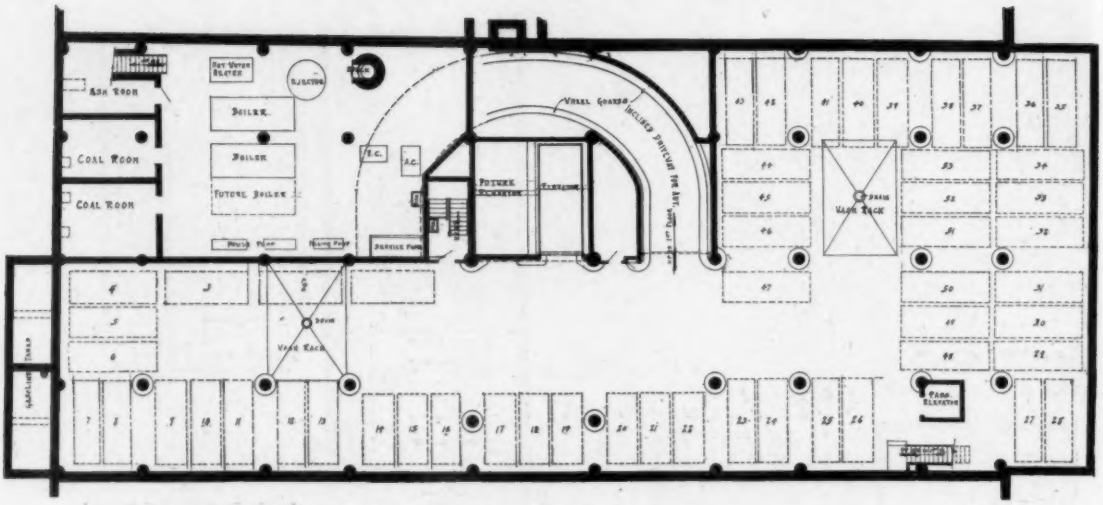
PLAN OF SUBWAY BALCONY



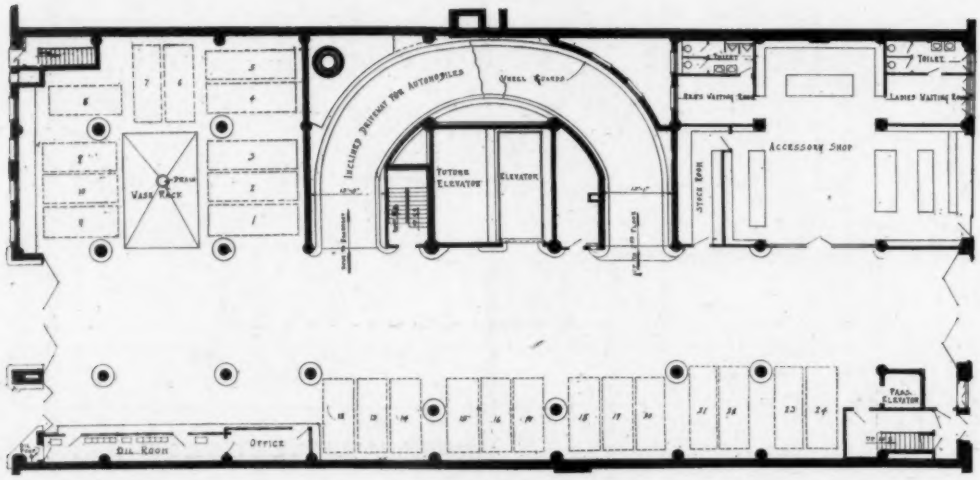
SUBWAY BASEMENT FLOOR PLAN

PLAN OF SUBWAY BALCONY

HOLABIRD & ROCHE, *ARCHITECTS*



BASEMENT PLAN



FIRST FLOOR PLAN

HOTEL LASALLE GARAGE, CHICAGO, ILLINOIS

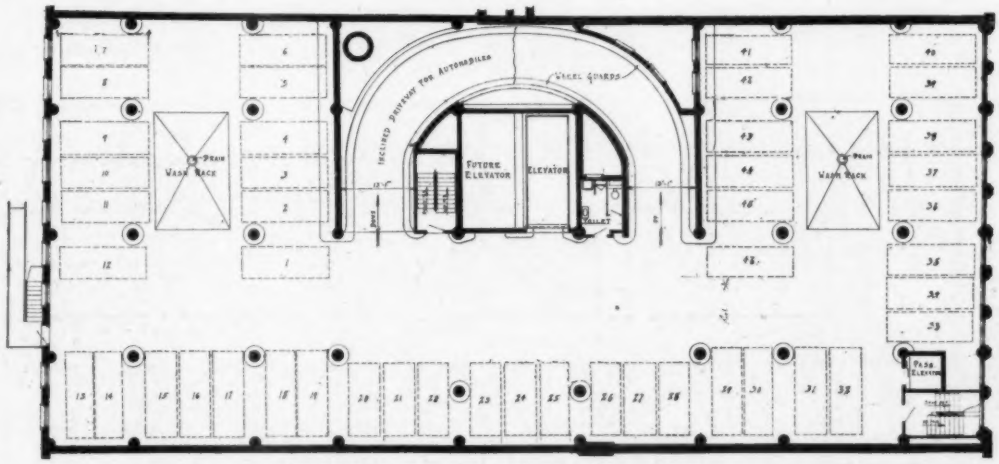
HOLABIRD & ROCHE, *ARCHITECTS*

speed. An elevator is provided for emergency use and an elevator is also provided for passengers. This is one of the first multi-story garages to be constructed and is a good example of the spiral driveway type.

THE Garrett Biblical Institute is located on the shores of Lake Michigan adjoining the Northwestern University at Evanston. It consists of dormitories and a recitation hall, arranged about three sides of a quadrangle open on the east to Lake Michigan. A street is continued through the recitation hall into the quadrangle. Between the recitation hall and Sheridan road another quadrangle will be provided about which will be grouped the library and chapel.

While the dormitories are quite severely plain in design, they are not monotonous in appearance. Space has been economized in planning, still affording ample room for the students. Generally, each entrance serves twelve students and the study rooms have been placed on the south side of the buildings, also bath and toilet for every four students. In building D a small social hall is provided. Two-thirds of the accommodations in suites comprise bedrooms and study, one-third of the accommodations consists of single rooms. All entrances open on the quadrangle. The buildings accommodate 106 students and cost $1,223 per student.

Building below grade is little appreciated by the ordinary observer because it is not readily seen. The great retail stores of Chicago utilize the lot area and the area under the sidewalks for business purposes, generally to a depth of 45 feet to 50 feet below the sidewalk level. This is made possible by the absence of rock until a depth of about 100 feet is attained. The freight subways of the Illinois Tunnel Company are at the depths mentioned and enter the buildings as shown in the subway basement plan of Mandel Brothers' Store Building. Coal and freight is brought to the building and ashes and refuse carried away through these tunnels. This is one reason that Chicago streets are not littered with ash cans which are hoisted to the sidewalks in some cities. Excavation for basements is also removed through the tunnels with a consequent relief from street congestion and dirt. In the subway basement is located the mechanical equipment and the shipping department. In the sub-basement is located the coal hoppers, breeching and some other parts of the mechanical equipment, locker and wash rooms for employes and a salesroom. The basement is used entirely for sales purposes. The high cost of real estate and the comparative cheapness of excavation justifies the construction of these deep basements. In some buildings, 20 stories high, the cost of construction below grade, including caisson foundations to rock, is from 20 to 30 per cent. of the total cost of the building. This will indicate the value of the sub-structures which are seldom seen by the public.

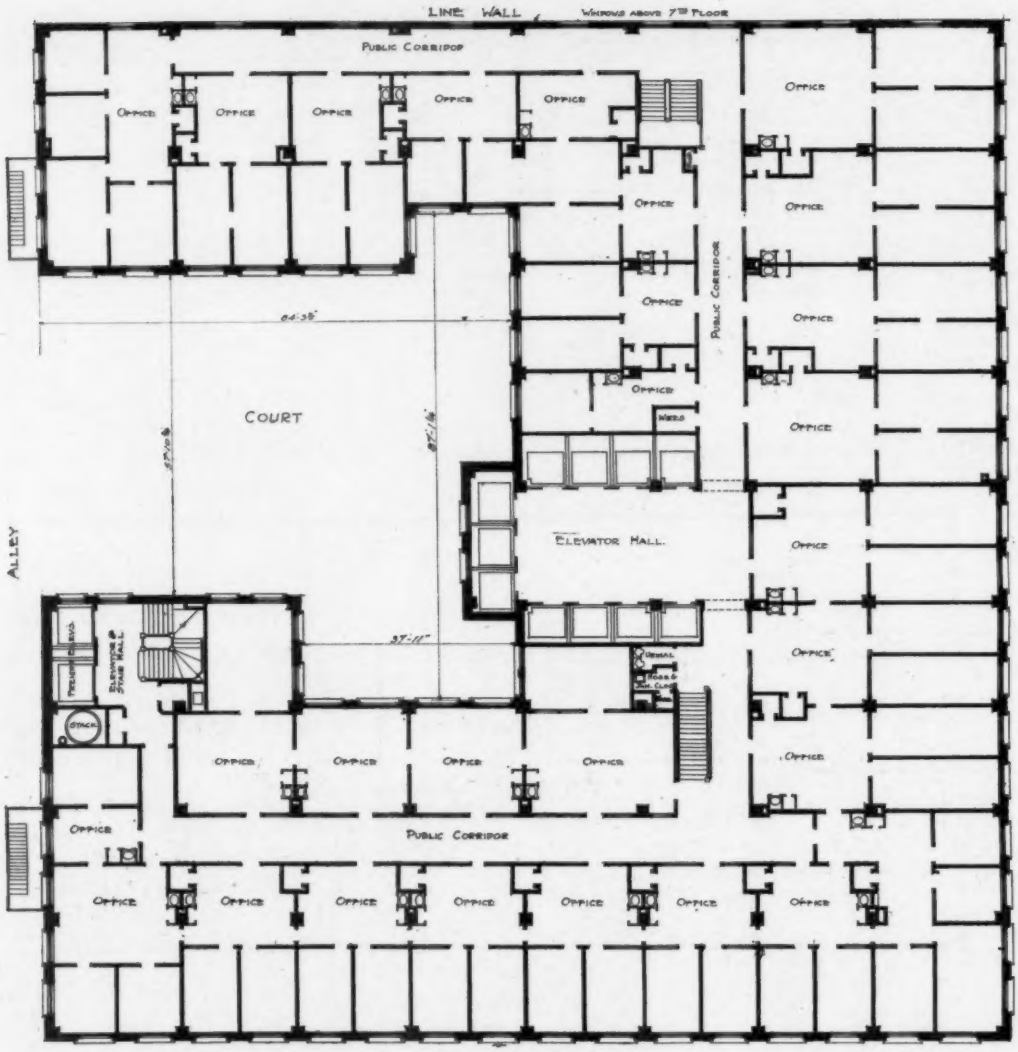


SECOND, THIRD AND FOURTH FLOOR PLANS

HOTEL LA SALLE GARAGE, CHICAGO, ILLINOIS

HOLABIRD & ROCHE, *ARCHITECTS*

AMONG the later hotels designed by Holabird and Roche, is the Deshler at Columbus, Ohio, which was completed in August, 1916. This building faces on three streets, 110 feet by 200 feet in



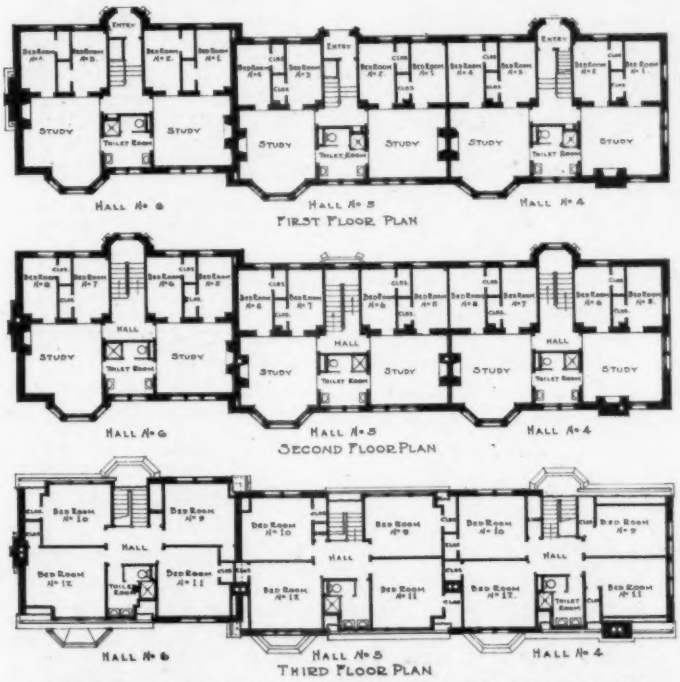
TYPICAL FLOOR PLAN

McCORMICK BUILDING, CHICAGO, ILLINOIS

HOLABIRD & ROCHE, *ARCHITECTS*

size, 12 stories and basement in height. The exterior is of red brick, gray terra cotta and granite base.

Architecturally, the style of the building on the exterior and the interior, as well as the furnishings, is Pompeiian. This style was selected because of its flexibility and its sympathy with the Greek and Roman. Modern life as exemplified in its games, dances and costumes, may be adapted to this style by careful designing. It has a grace and liveliness which is especially pleasing in a hotel structure and does not have that flatness and insipidity which is so often seen in hotels designed in the Adam style.



GARRETT BIBLICAL INSTITUTE, EVANSTON, ILLINOIS
BUILDING B, HALLS 4, 5 AND 6
HOLABIRD & ROCHE, *ARCHITECTS*

The basement extends under the sidewalk to the curb line on the three streets, occupying a space 130 feet by 210 feet. The basement lobby is entered through the elevators and main stairs and is connected with the Ionian grill room, billiard room, barber shop and men's and women's toilets. The balance of the space is divided between the engine and boiler room and the main kitchen.

The first floor lobby is 65 feet by 102 feet with the street entrances, between which are located the elevators and main stairs. A section of the lobby is devoted to the use of women with retiring room connected. The main dining room and bar and grill room are located to the west of the lobby. Five shops are located on the High Street frontage and these with the usual service, check and baggage rooms complete the first floor departments.

The second floor contains a ball room 56 feet by 80 feet, into which can be opened an assembly room 30 feet by 65 feet in size. Three large private dining rooms and a service pantry are located on this floor, the latter connected with the basement kitchen by dumb-waiters and a service stairway. Special toilet facilities are conveniently located adjoining the ball room. The balance of the floor is used for parlors and guest rooms.

In the typical floor plans the sample rooms are located in the west wing adjacent to the freight elevators. The balance of the floor is devoted to the usual guest room arrangements. An unusual feature is the extension of the corridors to the outside of the building. The service closets are grouped back of the elevators and stairs. The hotel contains 269 bed rooms and 57 sample rooms with bath, 31 rooms with toilets and 2 parlors, making in all 359 rooms.

The Broad Street vestibule has a barrel-vaulted ceiling and is lined with gray terra cotta. The main lobby is lined to a height of 12 feet with silver gray maple and the floor is of gray Tennessee marble. The prevailing tone of the main dining room, buffet and café is gray, with the ornaments emphasized by the use of black and gold.

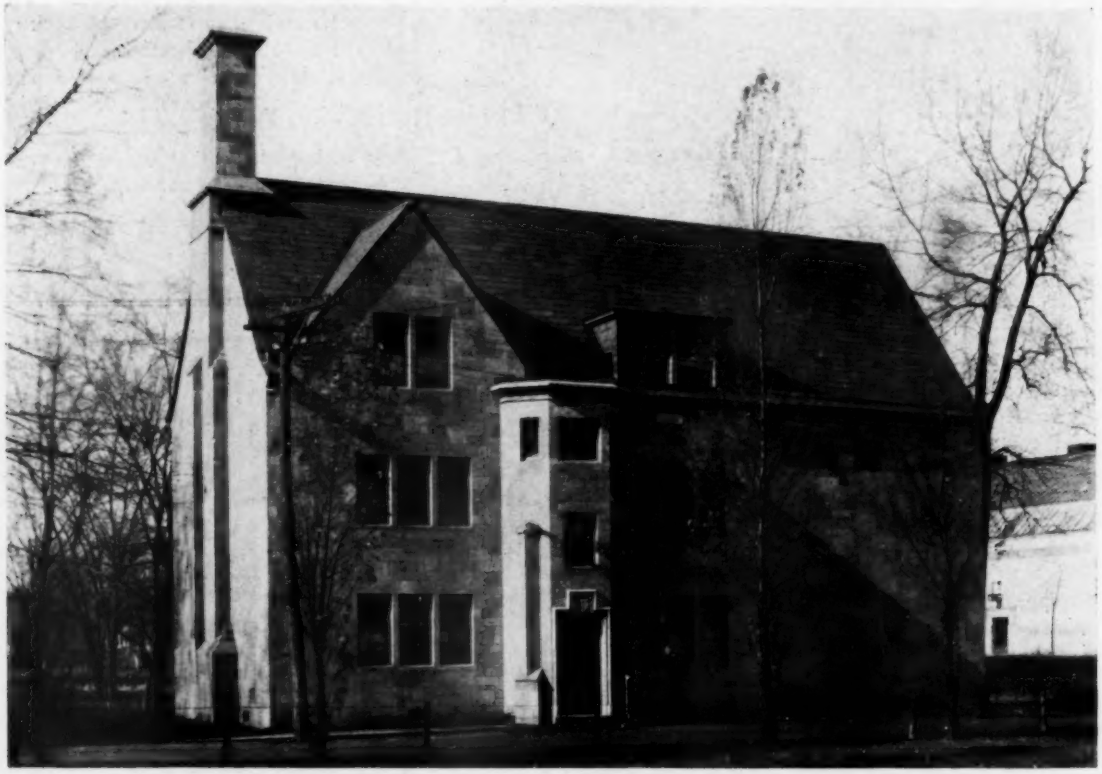
Located diagonally opposite to the northwest corner of the State House Square, this hotel can be seen in its entirety and its design and proportions studied with more satisfaction than is the case with the majority of city buildings. It is not the usual good fortune of the architect to be permitted to design such a structure in such an open and commanding position. The absence of the clumsy, heavy and ornate details that are common to many hotels causes the Deshler to be readily recognized as of superior design. The ornamentation is simple, refined and properly proportioned, according to its location; its relation to the entire mass is well worked out and the color effects harmonious and pleasing. This is one of the conspicuously good hotels that have been erected in recent years, either in Columbus or elsewhere.

Our Isles of Artists

Lake Como to Have an Artists Arcadia

THROUGH a characteristic act of generosity and courtesy on the part of the King of Belgium, and with the co-operation of the Italian Government, says the New York Sun, editorially, there has been established in Lake Como an Isle of Artists. The island was bequeathed to King Albert by its owner and the king accepted the legacy, offering it in turn to the Italian Government on condition that it should become a place of residence for artists. Under the direction of the Italian Under-Secretary of the Fine Arts the plan for converting the island into a center for artists was put under way. It is proposed to have pavilions for exhibitions and concerts, homes for the artists and a hotel, the building scheme to be completed by next summer. With a nice touch of international courtesy one of the buildings is to be called Belgian House and will be reserved exclusively for King Albert's subjects.

This is a fresh illustration of the long cherished idea that workers in the arts should have refuges, if no more than temporary, from the bustle and distractions of the work-a-day world. Sometimes these are no more definite than such artists' colonies as the one from which the Barbizon school took its name in France, or our own Lyme, or Gloucester, or New Hope. The MacDowell memorial estate in New Hampshire is one American manifestation of this idea of an Isle of Artists. The Tiffany Foundation of Long Island is another. It is also illustrated locally by George Grey Barnard's Gothic museum on Washington Heights. Of this bit of the Old World set down in a teeming center of the New World's modernity Mr. Bernard has said that he hoped "young painters and sculptors and poets would come and read old books as they walked up and down in this old garden."



GARRETT BIBLICAL INSTITUTE, EVANSTON, ILLINOIS
BUILDING C, HALL 7
HOLABIRD & ROCHE, *ARCHITECTS*

Beaux-Arts Institute of Design

DIRECTOR OF THE INSTITUTE, LLOYD WARREN

ARCHITECTURE, WILLIAM F. LAMB — SCULPTURE, JOHN GREGORY

MURAL PAINTING, ERNEST C. PEIXOTTO — INTERIOR DECORATION, ERNEST F. TYLER

Official Notification of Awards—Judgment of February 24, 1920

THE PUPIN PRIZE.

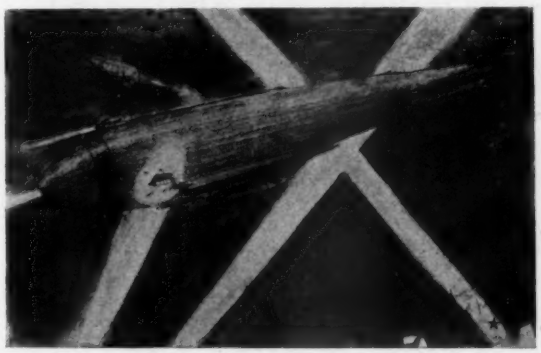
The Gift of Prof. M. I. Pupin of Columbia University, Offered for the ornamental treatment of some Scientific Appliance.

FIRST PRIZE—$50.00 SECOND PRIZE $25.00

PROGRAM

"A DIRIGIBLE BALLOON FOR THE LEAGUE OF NATIONS."

The transatlantic voyage lately accomplished by the British dirigible has established its practicability to transport a great number of passengers comfortably, safely, and swiftly to all parts of the globe. The use of hydrogen gas for buoyancy or lifting power is the only factor of danger, and for this reason the power plants for propulsion have been suspended in three or four well isolated units from the rigid envelope, which, in turn, contained the hydrogen gas bags. The power plants, thus suspended, complicated the entire structure, and made an efficient stream line design difficult, besides being cumbersome and easily damaged when landing. The introduction of the dead or non-explosive gas, helium, into the gas bags contained in the rigid outer hull, allows the power plants to be incorporated in the structure itself, that is to say, in the gondola or gondolas along the keel, or from the sides or ends of the rigid envelope, care naturally being taken to prevent the propeller from damaging the envelope. This fundamental



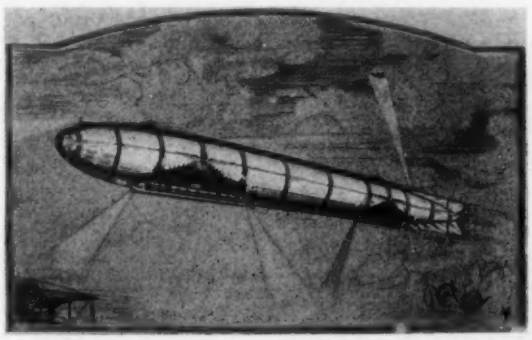
J. K. SMITH 2d PRIZE UNIV. OF PENNA.
PUPIN PRIZE COMPETITION
A DIRIGIBLE BALLOON FOR THE LEAGUE OF NATIONS

advantage allows the stream line design of these monster structures to be greatly simplified. The center of gravity of the entire structure should be as low as possible so as to prevent overturning. The lifting, or steering planes should be well placed, the recent photographs of the English dirigibles showing these very plainly.

An observation platform on top, an entrance at the head and a platform or poop at the rear are features of special inlterest. The envelope itself has possibilities for mural decorations. A wireless outfit should also be considered, and the large dirigibles should provide for an aeroplane on top with a starting and landing stage. None of these accessories should be below the gondola, as they would interfere in landing. The gondola or gondolas along the keel may be one or more stories high, and should have decks for passengers. Arrangements should also be considered for searchlights, and methods devised for illumination and decoration for gala occasions.

THE PROGRAM.

The government of the United States of America, which possesses the only supply of heiulm gas, has been requested



R. P. VANDERPOEL 1st PRIZE SYRACUSE UNIV.
PUPIN PRIZE COMPETITION
A DIRIGIBLE BALLOON FOR THE LEAGUE OF NATIONS

to construct a large dirigible to transport the representatives and delegates of the different countries to and from the seat of the League of Nations. This dirigible should contain in its design all the features described above and should be 1,000 feet long.

JURY OF AWARD:

R. M. Hood, W. F. Lamb, F. A. Godley, E. S. Hewitt, J. W. O'Connor and C. S. Peabody.

NUMBER OF DRAWINGS SUBMITTED: Thirty-three.

AWARDS:

First Prize ($50): R. P. VanderPoel, Syracuse University, Syracuse.

Second Prize ($25): J. K. Smith, University of Pennsylvania, Philadelphia.

Placed Third: G. M. Martin, University of Pennsylvania, Philadelphia.

Placed Fourth: R. W. Craton, Columbia University, N. Y. C.

Placed Fifth: H. Nolan, Cornell University, Ithaca.

PROGRAM.

CLASS "A"—III PROJECT.

The Committee on Architecture proposes as subject of this Competition:

"A PRINTING ESTABLISHMENT."

A company, printing and publishing books and magazines, has decided, owing to labor conditions and to secure greater economy of operation, to remove their plant to the suburbs of a large city. It has, therefore, secured a tract of land of considerable area near the main line of a

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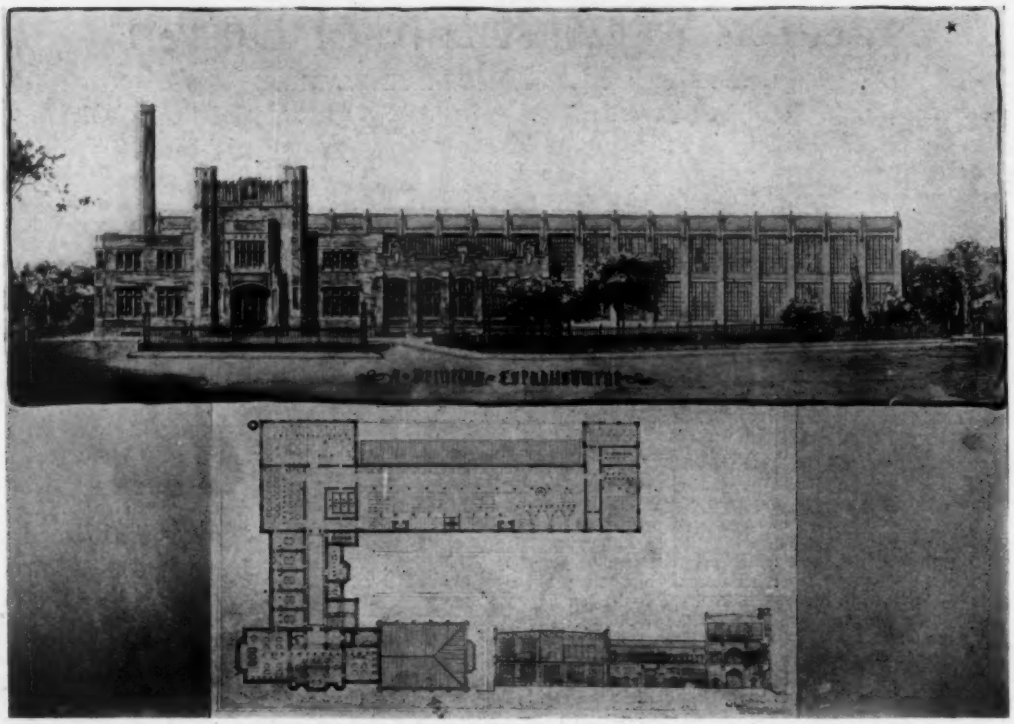
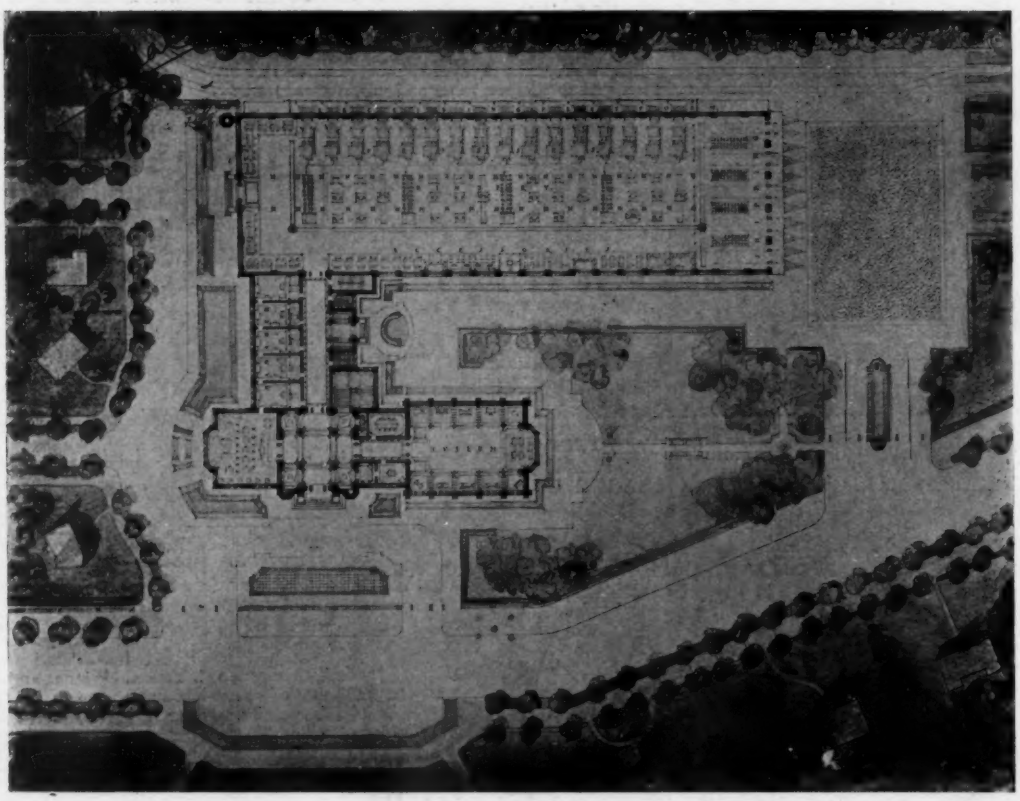
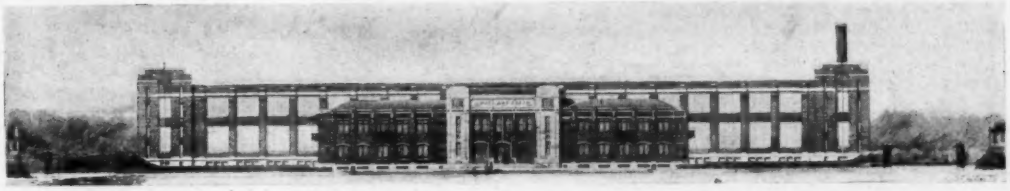


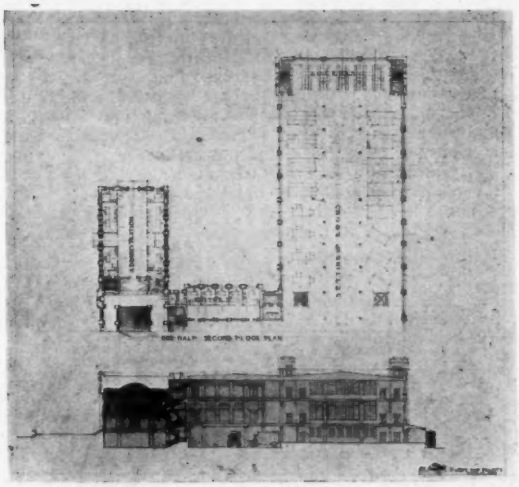


P. DOMVILLE FIRST MEDAL UNIVERSITY OF PENNSYLVANIA

CLASS "A" III—A PRINTING ESTABLISHMENT

STUDENT WORK, BEAUX ARTS INSTITUTE OF DESIGN





CLASS "A" III PROJET

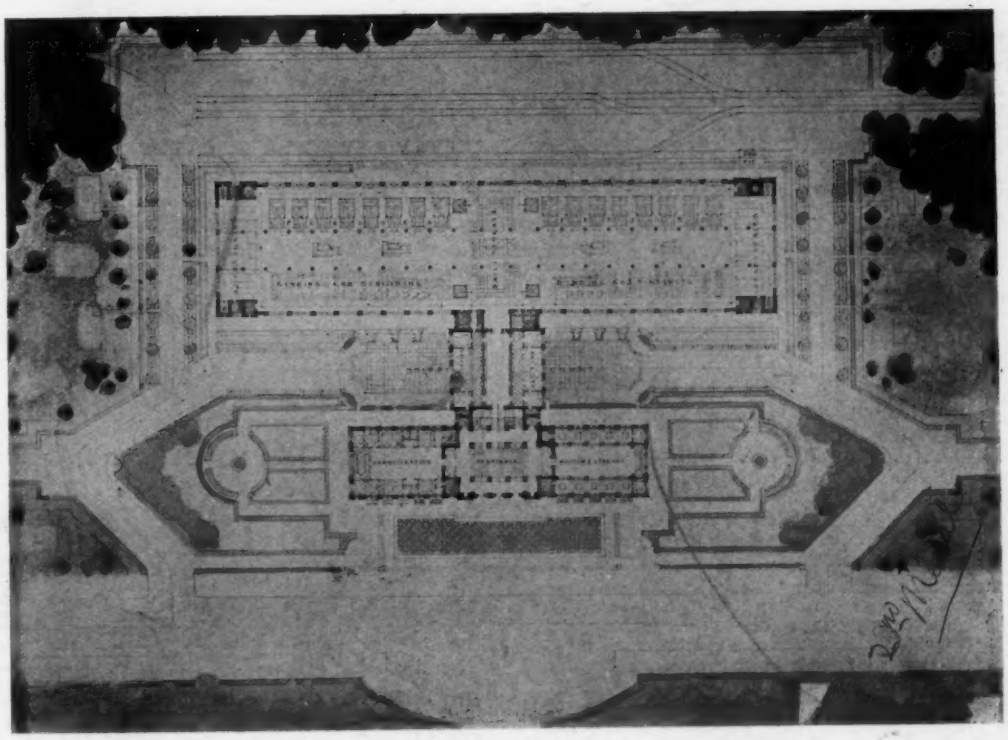
A PRINTING ESTABLISHMENT

2d MEDAL

A. LEVY — UNIV. OF PENNSYLVANIA

STUDENT WORK

BEAUX ARTS INSTITUTE OF DESIGN



XUM

railway and facing an important thoroughfare leading to the city. Upon this site it intends to build a complete establishment, including the plant, a development for the housing of employees, and a landscape treatment that will make the scheme attractive from an artistic point of view, and will also serve as an advertisement for the company.

The problem will consist of the plant proper, excluding the housing development, but comprising the immediate

P. F. TAYLOR 3d MEDAL UNIV. OF PENNA.

CLASS "A" AND "B" ARCHAEOLOGY—II PROJET

THE SULTAN'S TRIBUNE IN A TURKISH MOSQUE

surroundings, and will contain, in a basement and two floors, the following:

A. A Vestibule for the reception of visitors with stairway or stairways to the other floors.

A Library or Museum for the exhibition of rare examples of the printing craft.

The Administration, consisting of offices for the various managers and superintendents and their assistants, and for members of the executive force.

The Editorial Rooms, which should be on the second floor, and in close connection with the composing room mentioned below for the convenience of copy distribution and proof correction.

B. The Mechanical Plant.

This should be so arranged that there will be the greatest economy of operation, and the various pieces of machinery should be so disposed that there is a progressive operation from the beginning to the finished product. There should be provided storage space in the basement for the paper and other raw materials which arrive by a spur from the railroad or by motor truck from the city. This storage space should be readily accessible, by means of stairs and elevators, to the point where the operation begins, and a space should be provided on the main floor for sufficient supplies for the day's work.

On the main floor there will be sixteen (16) presses, each with an overall dimension of 10 x 18 feet, a machine which collects and arranges automatically the various sheets, and three (3) or four (4) folding and binding machines.

Besides the storage in the basement for the finished product, there should also be storage and packing facilities near the shipping platform, which is accessible to the spur track or motor truck delivery.

Above the press room are to be—the Setting-up Rooms with Linotype machines which are to be in close connection with the presses by means of stairs and elevators; the Electrotyping Room, the Type Foundry where the final forms are cast; a small Rest Room and Hospital.

All these should have abundant light—in fact, the whole mechanical plant should be well lighted and ventilated.

The basement will contain, besides the storage space above mentioned, the power plant for the generation of heat and electricity for light and power.

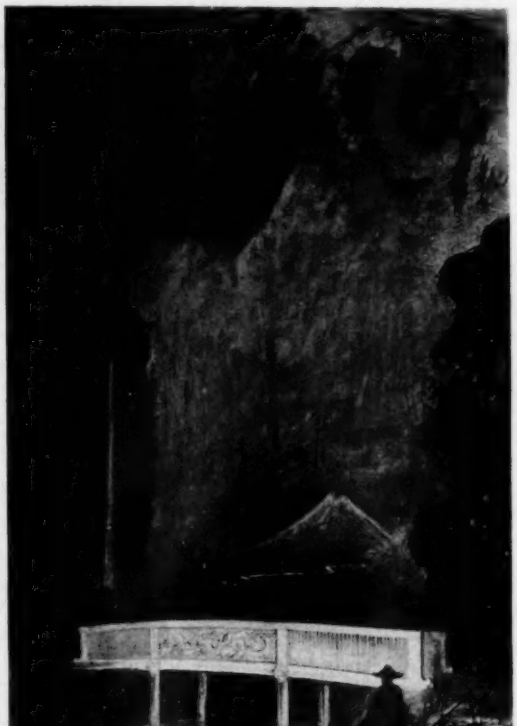
Elevators and stairways should be provided throughout the plant to give ample communication between floors.

The land devoted to the building above must not exceed 350 x 250 feet.

JURY OF AWARD:

W. F. Lamb, B. W. Morris, P. Cret, M. Prevot, G. A. Licht, A. E. Flanagan, C. S. Peabody and J. W. O'Connor.

NUMBER OF DRAWINGS SUBMITTED: Thirty-six.



G. B. HOUK 1st MENTION CORNELL UNIV.

CLASS "B" III—ESQUISSE-ESQUISSE

A RUSTIC BRIDGE

AWARDS:

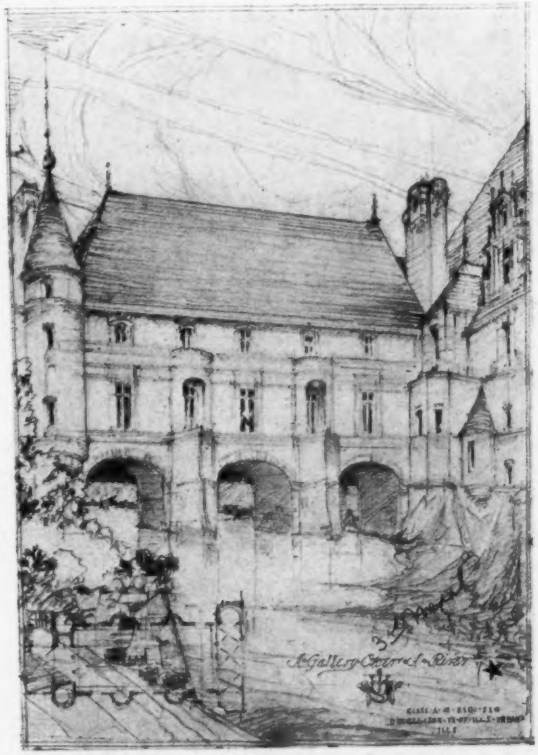
First Medal: P. Domville, University of Pennsylvania, Philadelphia.

SECOND MEDAL: H. G. Marceau, C. Denison and J. G. Schumann, Jr., Columbia University, N. Y. C.; R. Nickel, "T" Square Club, Philadelphia; A. Levy and S. J. Laschenski, University of Pennsylvania, Philadelphia.

MENTION:

Rosamond Wolcott, A. W. Bitterman, Florence Wingate and S. Oxhandler, Columbia University, N. Y. C.; J. B. McCool, C. E. Silling, J. P. Davis, W. J. Perkins, P. Friedman and S. P. Stewart, Carnegie Institute of Technology, Pittsburgh; R. Platt, "T" Square Club, Philadelphia; G. F. Street, University of Kansas, Lawrence; W. F. McCaughey, Jr., University of Illinois, Urbana; T. B. Epps, G. K. Trautwein, E .Coscia and A. E. Westover Jr,., University of Pennsylvania, Philadelphia; N. Larson, University of Minnesota, Minneapolis; T. F. Price and P. N. Jensen, Atelier Wynkoop, N. Y. C.

H. C.:



D. M. ALLISON 3d MEDAL UNIV. OF ILLS.

CLASS "A" III—ESQUISSE-ESQUISSE

A GALLERY OVER A RIVER

PROGRAM.

CLASS "B"—III ESQUISSE-ESQUISSE.

The Committee on Architecture proposes as subject of this Competition:

"A RUSTIC BRIDGE."

This bridge, which spans a small stream 15 feet wide in a picturesque and wooded part of a public park, is for pedestrians only. The banks of the stream are about 5 feet above the level of the water, and slope at an approximate angle of 45 degrees. The material used in the construction of the bridge may be either wood or stone, or a combination of both, at the option of the competitor.

JURY OF AWARD:

R. M. Hood, F. A. Godley, H. R. Sedgwick, H. W. Corbett, E. S. Hewitt and M. B. Stout.

This jury also served as Jury of Award for Class "A" III Esquisse-Esquisse and Class "A" and "B" Archaeology II Project and II Measured Drawings.

NUMBER OF DRAWINGS SUBMITTED: Sixty-nine.

AWARDS:

First Mention: P. F. Simpson, J. O. Cahill and K. Snow, Carnegie Institute of Technology, Pittsburgh; G. B. Houck, Cornell University, Ithaca; H. W. Gill, Columbia University, N. Y. C.; G. Chittenden, Los Angeles Architectural Club, Los Angeles.

Mention: C. B. Marks, C. A. Lake, E. A. Early, D. H. Bodin and R. Schmertz, Carnegie Institute of Technologyy, Pittsburgh; E. B. Mason, Cornell University, Ithaca; L. Rombotis and M. Sabransky, Los Angeles Architectural Club, Los Angeles.

PROGRAM.

CLASS "A"—III ESQUISSE-ESQUISSE.

The Committee on Architecture proposes as subject of this Competition.

"A GALLERY OVER A RIVER."

As an addition to a great country residence situated on the banks of a small river which flows through the estate, it is proposed to erect a wing or gallery, which on its main floor will contain a suite of rooms devoted to social functions, and on its second floor will house the owner's collection of antique furniture and objets d'art.

This gallery will span the river, being carried on a series of arches, and will terminate on the bank opposite to that on which the present residence stands, in a pavilion containing the entrance vestibule, stair hall, retiring rooms, etc., which serve the gallery.

The level of the main floor is 25 feet above the surface of the water, and the total length of the gallery not including the entrance pavilion, is 100 feet. The entrance pavilion is not required in this problem.

NUMBER OF DRAWNGS SUBMITTED: Seventeen.

AWARDS:

Third Mention: G. W. Trofast-Gillette, Columbia University, N. Y. C.; E. R. Froesce, Atelier St. Louis, St. Louis; D. M. Allison, University of Illinois, Urbana.

Mention: R. P. Vander Poel, Syracuse University, Syracuse; S. H. Brown and T. E. Ash, "T" Square Club, Philadelphia.

PROGRAM.

CLASS "A" AND "B" ARCHAEOLOGY—II PROJET.

The Committee on Architecture proposes as subject of this Competition.

"THE SULTAN'S TRIBUNE IN A TURKISH MOSQUE."

The Byzantine and the Early Christian styles of Architecture, while closely allied in many points, are separated by one basic distinction, for the domical plan is characteristic of the former while the basilian is of the latter . Also the Byzantine is largely a style of veneer. The buildings are of brick or wood, clothed with marbles, tiles or carved wood and embellished with elaborate surface detail in color and inlay. Marble columns with fantastic capitals and rich cornices of classic types are used, though the typical mouldings are flat with surface decoration. St. Sophia in Constantinople is the typical example of the style and its strong influence can be seen in St. Marks, Venice, and even in St. Front, Perigeux.

The subject of this problem is the special tribune provided for the Sultan in a Turkish mosque.

It shall be supposed to occur near one of the great corner piers supporting the central dome of the mosque, and shall be carried on piers or columns, so that its floor shall be approximately 10 feet above the floor of the

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mosque. The tribune itself, which shall not exceed 20 feet in any horizontal dimension, is to be enclosed on the sides to protect the Sultan from the view of the public by means of pierced grills of wood or marble, and shall be covered by a wooden roof or canopy. A gallery, similarly protected on the sides, shall lead from the tribune to the Sultan's private entrance. The tribune shall be rectangular or polygonal in form.

NUMBER OF DRAWINGS SUBMITTED: Three.

AWARDS:

Third Medal: R. W. Craton, Columbia University, N. Y. C.; P. F. Taylor and J. W. Brooks, University of Pennsylvania, Phila.

CLASS "A" & "B" ARCHAEOLOGY—II MEASURED DRAWINGS.

NUMBER OF DRAWINGS SUBMITTED: Three.

SUBJECT:

The Swisher Mansion, Austin, Texas.

AWARD:

Mention: K. B. Niven, University of Texas, Austin,

SUBJECT:

Old Land Office, Austin, Texas.

AWARD:

Mention: K. B. Niven, Univresity of Texas, Austin.

SUBJECT:

The Alamo, San Antonio, Texas.

AWARD:

Mention: K. D. Beckmann, University of Texas, Austin.

Present Situation in the Building Industry

By H. H. Fox, *Vice-President of the Turner Construction Co.*

ABOUT May 1 there was a falling off in the demand for new buildings and there were some cancellations of contracts and some stoppage of work on buildings already under construction.

The probable causes of this situation seem to be as follows:

1. High estimates of the cost of new buildings.
2. Uncertainty in the minds of owners, particularly on the following points:

(*a*) Will the actal cost of a new building be within the estimate or will a situation prevail such as prevailed during the fall of 1919 and the winter of 1920 in which, owing to strikes, not only in the building trades but in the steel, coal and railroad industries, costs in general exceeded estimates?

(*b*) Will it be possible to complete a building within a reasonable length of time in view of the shortage of materials and the congestion of the railroads?

(*c*) Will it be possible to build a building a year or two hence for materially less than it would cost now?

(d) Will a sufficient demand for manufactured goods exist during the next few years so that a manufacturer can hope to earn a fair return on an investment made in a building at the present time?

(*e*) Will a sufficient supply of labor exist and will this labor work with efficiency so that a manufacturer can hope to operate a new plant to advantage?

3. High money rates.
4. Politics.

Taking up the above points in order:

1. There is no doubt whatever that the estimated costs of buildings today are higher than they have ever been. It is a fact, however, that building costs have not risen as much in the last five years as commodity prices.

(*a*) Will the actual cost of a new building be within the estimate or will a situation prevail such as prevailed during the fall of 1919 and the winter of 1920 in which, owing to strikes, not only in the building trades but in the steel, coal and railroad industries, costs in general exceed estimates?

The most important factor in considering this question is the railroad situation. Supplies of the principal building materials, namely, steel, cement and lumber, exist at the points of origin but on account of the car shortage which amounts to over 100,000 cars contrasted with a surplus a year ago of over 300,000) these supplies cannot be moved away as fast as they can be manufactured. With the present demand for cars for the shipment of coal, and the demand which will develop in the fall for the shipment of grain, it is difficult to see how this situation can be overcome in the immediate future. However, the increase in wages for railroad employees and the freight rate increases, which will enable the railroads to improve their equipment, should mark the beginning of a lasting improvement in this situation.

There is an actual shortage of clay products, such as brick and hollow tile as these require considerable coal for their manufacture and the requisite coal cannot be obtained. This is another result of the car shortage.

(*Continued on page 253*)

Criticism and Comment

The Editors THE AMERICAN ARCHITECT:

On reading the leading editorial in your issue of July 21 a trail of thought is unfolded to the writer, who is prompted to present his observations on the subject.

In noting these observations the writer is not unmindful of the fact that, though he held a diploma from one of the leading schools of architecture in the United States and had had considerable experience over the drafting board, these qualifications were not considered when he tried to enter the service. Because of a slight physical defect his application for enlistment in the Corps of Engineers was rejected, and because of his being within the age limits of the "Selective" Service Act, he was unable to secure employment with the Construction Division of the army, although his experience in connection with Industrial Housing would have rendered his services in this department peculiarly valuable. The same defect that had prevented his enlistment in the Engineers' Corps, as well as in other branches of the service, did not prevent his induction into the service when his number was reached.

Having entered the service his professional qualifications seem to have been ignored. The fact that he had had some experience as a musician was believed as of more importance, although he had had no experience whatever with a band. He was accordingly given the gracious rank of Drum Major, carrying with it the stripe of a Band Corporal. This rank he retained until discharged from the service after the armistice.

The perusal of your editorial brings up the question: Are modern industrial life and business life in general based on considerations of personal fitness and do present-day methods of education and training place sufficient importance upon the qualifications of the individual? The writer's observations lead him to the conclusion that too much importance seems to be attached to a man's affiliations, his personal and social connections, and his influence, and too little to the question of whether he is of the proper calibre for the job. This is not uttered in a spirit of indictment or resentment, but merely as an observation on a widely prevalent condition. Neither does the writer think the condition universal.

Four years attendance at a leading university brought the writer into contact with hundreds of men of all types. True, the majority were serious and pursuing courses to which they were undoubtedly suited. On the other hand, many men's sole claim to a place on the register of the university was the fact that they (or their paters) were able to pay the Bursor at the proper time and, by dint of cramming they were able to pass the examinations. Such men almost invariably are invited into a fraternity (and are accepted) and in the after-college years, wield considerable influence by virtue of their fraternal connections and "get away with it." Too often this influence places them in positions where they ultimately fail.

Similar conditions have too strong an influence in the U. S. Army to be beneficial. Too often has the writer seen men whose principal claim was their good fellowship or their affiliations make headway in preference to the man who had a more solid foundation.

While the broadening influence upon the mind resulting from association with men of all classes, races and creeds, such as is experienced in the war-time army, is of undoubted importance, the writer, nevertheless, cannot help but believe that its value could be greatly enhanced were more importance attached to the man's personal qualifications and less to his affiliations.

Referring specifically to the question in your editorial whether or not professional men left the service better equipped for their work, it cannot be doubted that the majority of the men gained in health and became better acquainted with the world in general. But the universal and unavoidable tendency of the rank and file of armies to pull the higher level of intellect to the plane of the average or lower intellect certainly had an unwholesome effect upon men accustomed to seeing and appreciating the finer things in life (as an example of this tendency witness the average souvenir store catering to the soldier, with its display of gaudy and silly souvenirs and trinkets). Furthermore, the total cessation of professional duties, as was the case with most professional men, and the assumption of the strenuous routine of army life could not but tend to reduce professional efficiency. Close observation since again coming in contact with professional men convinces the writer that while military service improved the physique and health it did not tend to better equip the men for the resumption of their professional duties.

New York. EX-SERVICE.

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Memorial Bridge Proposed for New York

THE War Memorial Committee of New York City looked with particular favor upon a bridge across the Hudson River. A letter to the committee from the North River Bridge Company answers some of the objections which were made to this form of memorial. As to the bridge which that company proposed to build under a perpetual Federal charter granted in 1890, it says: "Its colossal size is dictated by the needs of the city. Every foot of the two decks, each 180 feet wide, will be needed after its completion for the very pressing traffic across the river. The objections of your jury of artists to the profanation of a war memorial by the noise and clatter of railroad traffic can be readily understood and indorsed, but in this case are not well founded. The solemn monumental character of the bridge will not be impaired by railroad tracks, since they will be electrified and on the lower deck, entirely out of sight from the street level, which will be on the upper deck. They will be no more visible or noticeable than the subways are in our streets.

"The middle boulevard, eighty feet wide, will be on the upper deck, rising with an easy grade from Ninth avenue and connecting with the existing boulevard on top of the Palisades. The side avenues, with surface tracks, will be screened separate and screened from the middle boulevard by trusses. A grander concourse can hardly be conceived. The massive anchorages and the bridge towers on both sides of the river lend themselves in an extraordinary degree to monumental stone architecture of colossal proportions which decorative art can beautify to meet the most artistic taste."

Another plan for a bridge across the Hudson is now in the hands of the New York-New Jersey Port Commission, which is proposed to cross at Grand street. This bride was designed by Alfred C. Bossom, architect, chiefly from the point of view of transportation necessities. It would provide ten tracks on its lower level which would greatly facilitate the handling of freight in and out of Manhattan Island.

Patchin Place, Tenth Street, New York City

(See reproduction of the original drawing by O. R. Eggers in this issue)

LYING in the very heart of Greenwich Village is Patchin Place. So well protected is it in its privacy and the absence of contact with the busy New York of today, that one has to search keenly for this quaint old neighborhood—almost the last record of a dignified residence location.

Patchin Place is located on that slanting direction of Tenth Street which inconsistently as it may seem crosses Ninth and Fourth Streets in its progress toward the Hudson River. Halfway of the block between Sixth and Greenwich Avenues this little group of well proportioned houses lies in a veritable cul-de-sac. Its narrow sidewalks are simple approaches for the dozen houses which, six abreast, front on an equally narrow roadway. From close to the building line there spring Acanthus trees whose tops meet in a leafy arch that embowers the street. Standing with one's back to the wall that serves as a barrier to the further extension of the place and on a moonlight night looking through a tracery of leaves toward the spires and minarets of the court building on the opposite side of Tenth Street, it is difficult to imagine that one is exactly in the center of Greenwich Village—a bustling, ever restless part of the city. The isolation is complete. The hum and jarring noises of the city's traffic, the rumble of the nearby elevated trains, all those many discordant elements of city life are hushed to stillness in Patchin Place.

Who built this row of fine old houses we do not know, for diligent inquiry has not enabled us to discover the identity of the architect. But they arose during a period when the classically correct proportioning of solids to voids was considered the very essence of good architectural design. It seems futile to hope that this quaint location can very long withstand the progress of the city's growth, but it is reassuring to have been able to observe on the occasion of a recent visit to Patchin Place that certain necessary repairs and restorations were in progress. This gives rise to the hope that the present owners realize the artistic and historical significance of this little gem and are desirous of keeping it as it always has been.

PATCHIN PLACE, NEW YORK

THE AMERICAN ARCHITECT Series of Early American Architecture

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EDITORIAL

The Pressing Need for New Postal Arrangements

THE announcement that the United States Post Office Department has taken a long term lease of a building soon to be erected on 38th Street, New York, lends encouragement to the hope that New York may eventually find relief from the poor postal service that now creates an intolerable condition. New York City transacts about one-ninth of the entire post office business of the country. Any lack of proper facilities for the easy handling and quick despatch of mail matter there accordingly affects the entire country. The proposed building on 38th Street but touches the rim of New York's necessities. Congress should at the earliest moment provide the needed authority for other similar buildings.

There should first be one in the downtown financial district. This will bring up the much discussed matter of the long delayed removal of the awful building that now spreads its disfiguring bulk along the southern end of City Hall Park. Further, Congress should provide for the extension of the Pennsylvania Terminal Post Office Building, either by enlargement or by another and new building in the immediate vicinity. There have been no new post office buildings erected in New York since 1912, in which year the Pennsylvania Branch Post Office Building was completed. No provision was made in the building for the enormous increase in the parcel post business. The rapidly growing sections in the outlying districts of the greater city will also need buildings to accommodate their imperative needs, while the Grand Central Terminal Branch Post Office has already become so congested by an enormous increase as to handicap very seriously the efficient handling of mail matter.

WHAT is true as to New York is true in an only slightly lesser degree in every large city of the United Sates. "The Postal Service," to quote Mr. Koons, the first assistant postmaster general, "is simply a big business of more than $450,000,000 annually and is increasing at a rate never heretofore known."

Congress must soon tire of the game of politics it is so constantly playing and become alive to the necessity for some speedy relief in the handling of our enormous bulk of mail. When the government resumes its building operations, the needs of the Post Office Department should receive first consideration. And as these building needs are of the most commercial character, we shall have to evolve a new type of post office building, one that will serve all the necessities of the department and not become a further development of those purely ornamental civic monuments that are spread broadcast all over the United States.

The new post office buildings should be exactly for the utilitarian purposes they are intended to serve. Owing to land values, the ground areas will necessarily be restricted and it will, therefore, be necessary to carry these buildings to a height greater than buildings of this type hitherto constructed. This will be necessary not only to afford room for the large volume of business that will be conducted, but also to provide the needed light and air.

The policy of constructing post office buildings with provision for the rental by the government of space to private enterprises not connected with postal business should be discontinued. The undesirability of such a method has been demonstrated in all of our large cities, and particularly in New York. In this city there are instances where the Post Office Department has rented for its use the lower stories of buildings in busy sections. The conditions created have become intolerable, and have maintained a state that not only interfere with the public's comfort but often menace its safety.

THESE conditions of congestion and public discomfort suggest the serious consideration of some proper means of intercommunication between the various branch buildings and the railroad terminals. The logical method, because the most practical, is one of subways. This would solve the shipping problem, and prevent the blocking of sidewalks and the congestion of street traffic due to loading and unloading countless mail wagons during the entire twenty-four hours of each day.

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There can be no street regulation of the postal traffic after the manner of the usual regulation of ordinary street traffic. The mails must not be delayed, hence the right of way is arbitrarily construed by employes as permission practically to completely blockade the streets and sidewalks in front of these temporary branches of the Post Office Department. The increase in business and the very radical change in its character by reason of the addition of the parcel post have created a condition that cannot be solved by precedent nor carried forward by the exercise of previous custom. It will require a new type of building, new methods and the abolishment of certain systems now antiquated and outworn. Congress should be brought to a realizing sense of the need that has developed and the present inadequacy of the methods employed to serve it. We should not wait until after election. We should get busy now.

Cultivating a National Art

WE have got to travel a long road in this country before we learn just what to us as a nation is the true value of art. Between the people and the end of the road there stands a barrier that has been many times approached and but seldom surmounted. That barrier is politics. We shall never progress unimpeded along the road to our ideals in art until we are able to show by a steadily increasing popular sentiment—a sentiment that means a preponderance of votes, that the majority demand the best expression of art in our architecture and all the arts to which architecture is allied.

We instinctively turn to France when we seek to name a country where art has really become a factor of civic government. The idea that art and the knowledge of art could ever be considered as of no importance by a civilized people or made to rank below the sordid interests that lead to money making, finds no sympathetic adherents in France. To the French, art is a necessity, not a luxury, and those in office who fail to realize this find their tenure short. In France, art and politics are indissolubly joined, but the junction is so much a part of the governmental ideals—those ideals that every man in public office must know, and knowing, further—that the union becomes one of vast importance and marks the continued progress of the French nation.

It will be the height of unwisdom first to bend every effort toward the accumulation of riches and then seek to acquire an art. You may not teach old dogs new tricks. The habit acquired by years of sordid plodding do not lead to an appreciation of art. As a nation we shall need to act along the same lines that might govern the individual. We must acquire an education in art and the refinements of life at the same time that we shall accumulate the money which will enable us to acquire good art and to appreciate what such acquisition means. Art is not a luxury, it is a necessity of our daily lives. No man is so much to be pitied as that very rich one who, having spent his life in the acquiring of money, finds that he has absolutely no ability to appreciate its advantages. These conditions may very well apply to a nation.

DECORATION, BERTINI GALLERY, MILAN

Present Situation in the Building Industry

(*Continued from page 248*)

One result of this situation has been to stop or slow down work on many projects and consequently throw many workmen out of work. This has created a surplus instead of a shortage of labor and should tend to increase the efficiency of labor. In several industries which we have investigated, it has had exactly this effect.

It would seem, therefore, that for the next few months labor troubles will be less frequent.

The major difficulty, therefore, is one of transportation rather than of materials or labor, and the situation is one which will affect the time of completion of a building more than the cost, although costs will be increased by increased freight rates, by the cost of expediting rail shipments, and to some extent by general inefficiency resulting from inability to have materials at the work when needed.

(*b*) Will it be possible to complete a building within a reasonable length of time in view of the shortage of materials and the congestion of the railroads?

Owing to the railroad situation it is impossible for a contractor at the present time to guarantee a date of completion of a large building. It is, nevertheless, a fact that many operations, both large and small, are at present under way and are being completed within a reasonable time.

(*c*) Will it be possible to build a building a year or two hence for materially less than it would cost now?

Consideration of this question involves two principal factors—the general price level; that is, the value of the dollar, and the demand for building construction.

Many articles have been written on the prospects of a decrease in the general price level and it is not necessary to discuss this topic at length. In view of the enormous increase of money in circulation ($56 per capita today, against $35 per capita in 1914); increased credit facilities due to the Federal Reserve System, making money easier to get and, therefore, easier to spend; high prices, shortage of raw materials, and inefficiency of labor in foreign countries which will prevent foreign competition which will prevent foreign competition from being a vital factor for some time, it seems unreasonable to hope for a rapid drop in the general price level.

Regarding the demand for buildings, a table was published in the Financial Chronical of February 14 giving the money value of building permits issued in the principal cities of the United States from 1906 to 1919. The figure for 1906 was about $805,000,000 and for 1919 $1,498,000,000.

Both 1906 and 1912 were years of good business, and according to the Chronicle's figures, the increase in building permits between those two years (disregarding the fact that several small cities are included in the 1912 table which were not in the 1906 table) was about 30 per cent. If this is considered a normal increase for a period of six years, the building permits issued in 1919 would normally have been about $1,400,000,000. This figure, however, is based on prices prevailing between 1906 and 1912. Based on 1919 prices the normal amount of building permits in 1919 would have been about $2,900,0000,000.

If we correct the figures from 1912 to 1919 so that they are on the same cost basis and show the quantity of building done instead of the cost, we find that the building work done between 1912 and 1919 was short of normal requirements by the following amounts:

1913	$50,000,000
1914	160,000,000
1915	150,000,000
1916	160,000,000
1917	730,000,000
1918	1,050,000,000
1919	600,000,000
Total	$2,900,000,000

This figure is still based on the 1912 cost standard. Based on present day cost it would be over $7,000,000,000, representing more than two years' normal building construction.

A further factor tending to increase the demand for buildings at the present time is the reduction in working hours which has taken place in many industries, necessitating a corresponding increase in working space if goods are to be produced in the same quantity.

In the face of this condition it is hard to see how there can be any material decrease in the cost of buildings for many years, excepting as these costs may be reduced by a drop in the general price level.

(*d*) Will a sufficient demand for manufactured goods exist during the next few years so that a manufacturer can hope to earn a fair return on an investment made in a building at the present time?

It is difficult to obtain figures on quantities of goods manufactured. Figures on basic commodities, however, are easily obtainable and it is reasonable to suppose that the amount of manufactured goods must fluctuate with the amount of basic commodities produced.

The Irving National Bank published a booklet in May, 1920, entitled "Problem of Prices," in which was shown the "Federal Reserve Bank curve of production in the United States of ten basic products."

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With production in the year 1900 taken as 100 per cent., production in 1912 is shown as 160 per cent., and production in 1918 as 195 per cent. This indicates that in the years 1912 to 1918 approximately the same rate of increase was maintained as in the years 1900 to 1912. In 1919, however, the production decreased to 182 per cent. The production in 1919 was, therefore, below normal requirements, and if we take into account the fact that during the war years a large part of the basic commodities produced were used up in the war, there is undoubtedly at the present day a considerable shortage to be made up.

Contrast this condition to the one which prevailed just previous to the 1907 panic. In 1906 the production of wheat was larger than in any previous year with the exception of 1901. In 1906 the production of corn was greater than in any previous year. In 1906 the production of cotton was greater than in any previous year with the exception of 1904. In both 1906 and 1907 the production of pig iron was greater than in any previous year. In 1906 the production of copper was greater than in any previous year.

The condition as to production of commodities today is so radically different from conditions which have preceded periods of depression in the past that it is difficult to believe that any falling off in demand for goods of all kinds can continue for more than a short period.

(*e*) Will a sufficient supply of labor exist and will this labor work with efficiency so that a manufacturer can hope to operate a new plant to advantage?

There are already indications that the efficiency of labor is increasing. We know of specific instances in which manufacturers have laid off part of their working force without decreasing the quantity of their product. The railroad situation has caused enforced idleness in many industries so that workmen can no longer show the indifference which unfortunately has prevailed during the past year and still be sure of holding their jobs. Immigration is increasing. There are good grounds for hope that in the immediate future employers will be less troubled with shortage and inefficiency of labor than during the past year.

3. High money rates are due largely to the fact that owing to high prices, about 2½ times as much money is required to finance a given undertaking as formerly was the case; and also to the enormous volume of new securities issued (on top of the Liberty Bond issues about $3,700,000,000 of new securities were issued in the twelve months ending April 30, 1920, against a previous yearly maximum of $2,300,000,000 in 1912). This situation has been intensified by the railroad situation which has kept manufactured goods from reaching the consumer. High money rates compared with the old standards are likely to continue for several years, although there should be some relaxation after the railroad situation is straightened out and the crops are moved. Equipment bonds of first class railroads running for ten years or more have recently been sold on a 7 per cent. basis. The United States Government has announced an issue of treasury certificates maturing in one year and carrying 6 per cent. interest, a rate which has not been paid by the Government since 1867. It may be inferred that our treasury department and railroads who are in a position to secure the best financial advice would not be borrowing at these rates for such long periods if any radical decrease in money rates were in prospect.

4. *Politics:* Much as we may have been chagrined during the past year at the failure of our Legislative and Executive Departments to cooperate, and much as we may wish to see the international position of the United States clearly defined, the fact remains that it is entirely possible that no bills will be introduced in Washington during the next four years of such vital importance to the purely material interests of the country as the Federal Reserve Law and the Railroad Law which are already safely on the statute books. Individual initiative and the law of supply and demand will have a greater effect on business than will legislative activities.

Conclusion: The shortage in buildings today is so great that it cannot be corrected for many years and for this reason it is not probable that there will be any material decrease in the cost of building.

If the railroad wage award handed down by the Railroad Labor Board imbues in the railroad employees a desire to hold their jobs; and if the fact that jobs are not as easy to pick up as they have been, makes them realize that they must work a little harder in order to hold their jobs, the railroad situation should begin to straighten out. The increased freight rates agreed upon by the Interstate Commerce Commission will enable the railroads to prepare a budget and place orders for equipment. In time the car shortage will be turned into a surplus and the abnormal amount of credit now tied up on goods in transit will be released.

The prospective builder must be prepared for some delay in the completion of work ordered in the immediate future; but he can, nevertheless, in our opinion, undertake construction work without fear either that there will be a sharp drop in building costs after his work is completed, or that there will be a material falling off in the demand for his products.

HOTEL DESHLER, COLUMBUS, OHIO
HOLABIRD & ROCHE, *ARCHITECTS*

XUM

DETAIL OF LOWER STORIES

HOTEL DESHLER, COLUMBUS, OHIO

HOLABIRD & ROCHE, *ARCHITECTS*

DETAIL OF CORNICE

HOTEL DESHLER, COLUMBUS, OHIO

HOLABIRD & ROCHE, *ARCHITECTS*

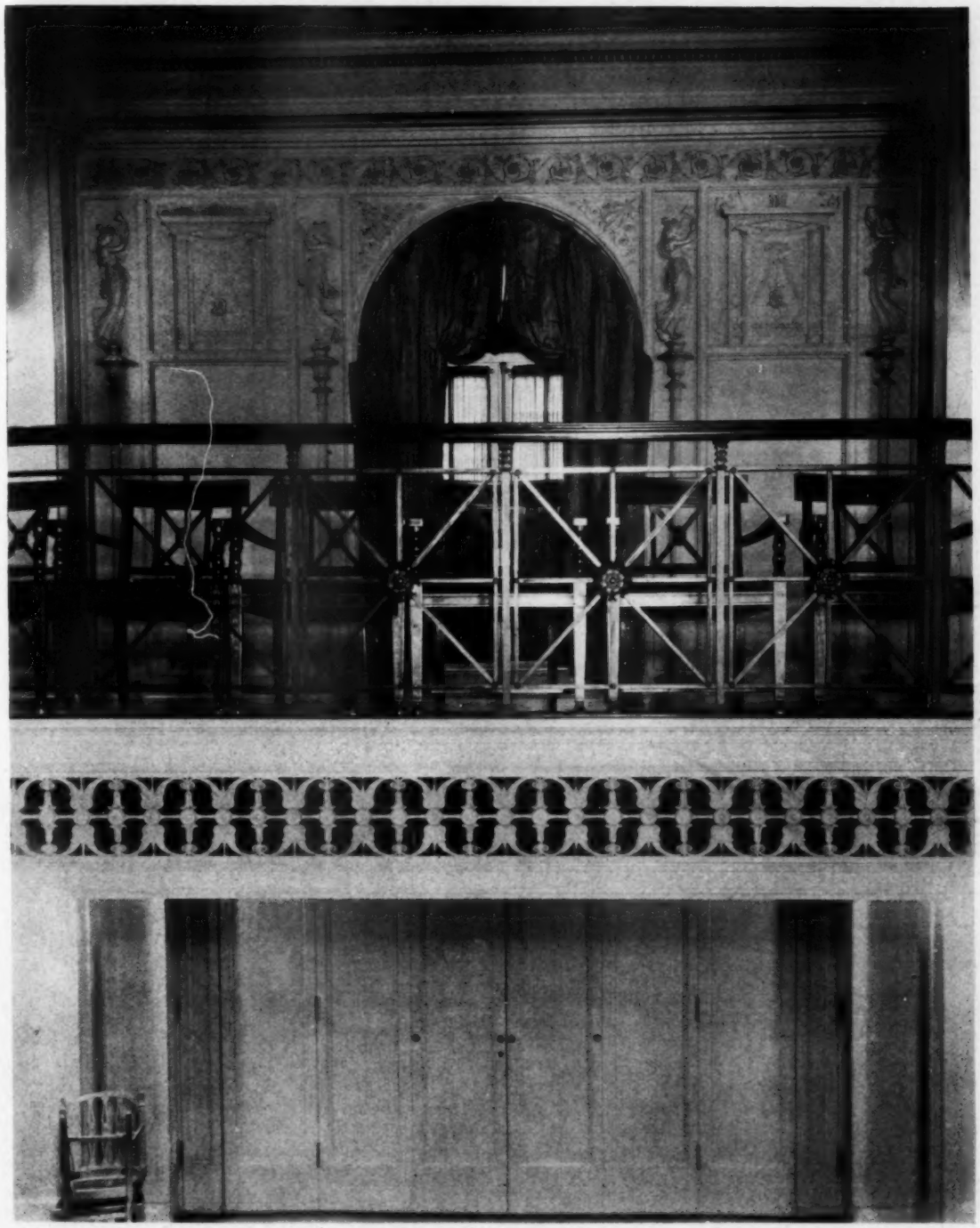
XUM

THE LADIES' PARLOR

HOTEL DESHLER, COLUMBUS, OHIO

HOLABIRD & ROCHE, *ARCHITECTS*

XUM

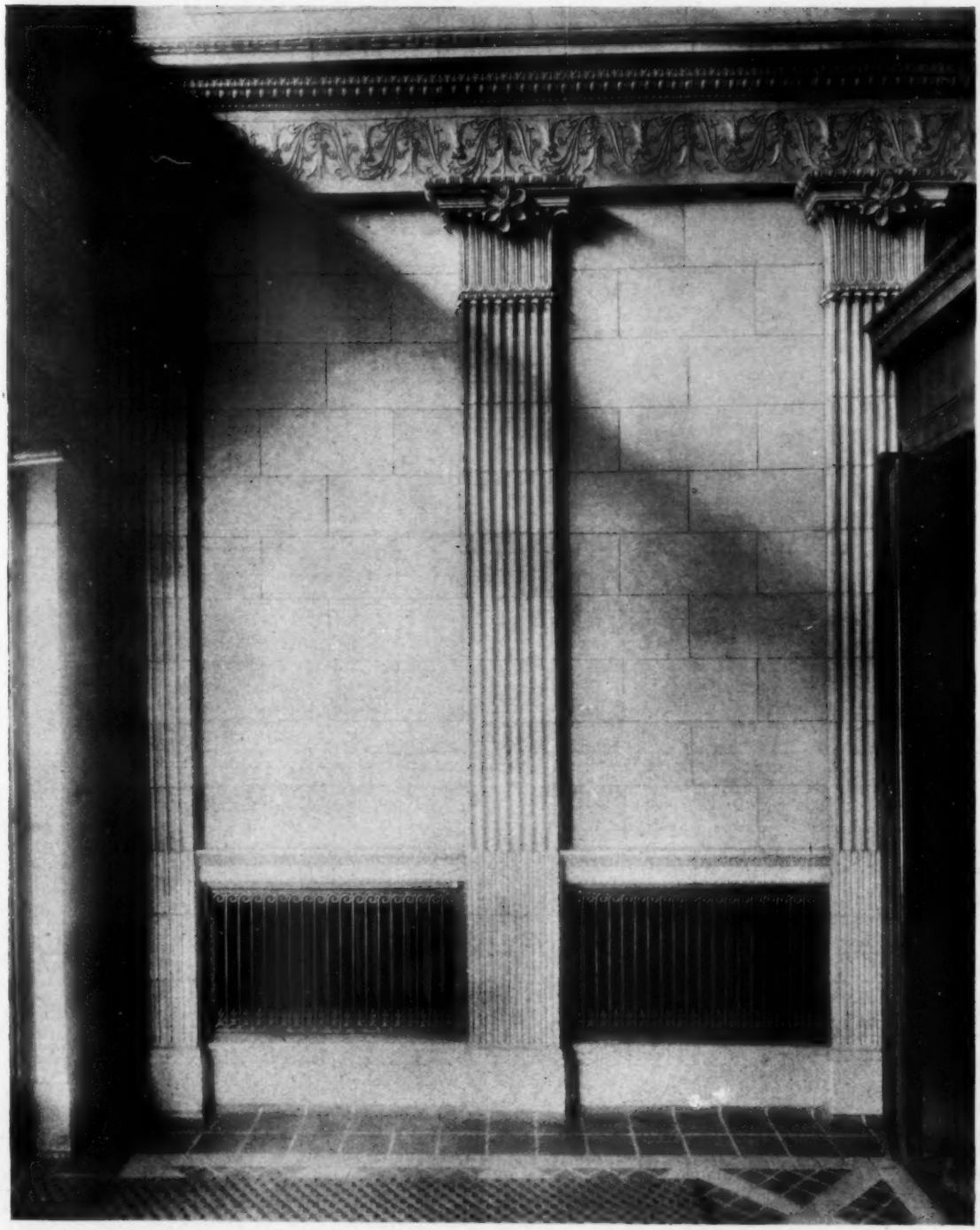


DETAIL OF BALL ROOM

HOTEL DESHLER, COLUMBUS, OHIO

HOLABIRD & ROCHE, *ARCHITECTS*

XUM

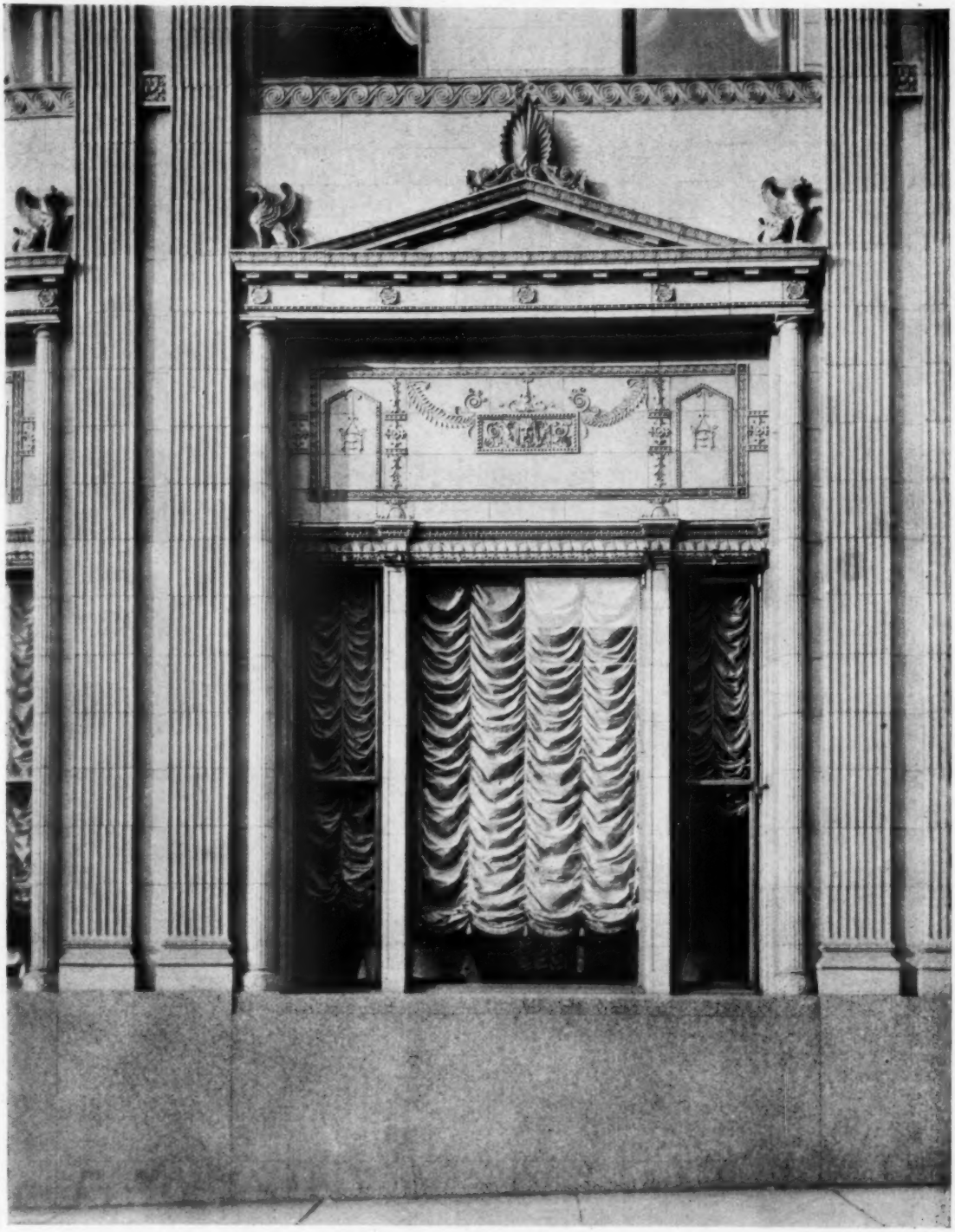


THE VESTIBULE

HOTEL DESHLER, COLUMBUS, OHIO

HOLABIRD & ROCHE, *ARCHITECTS*

XUM

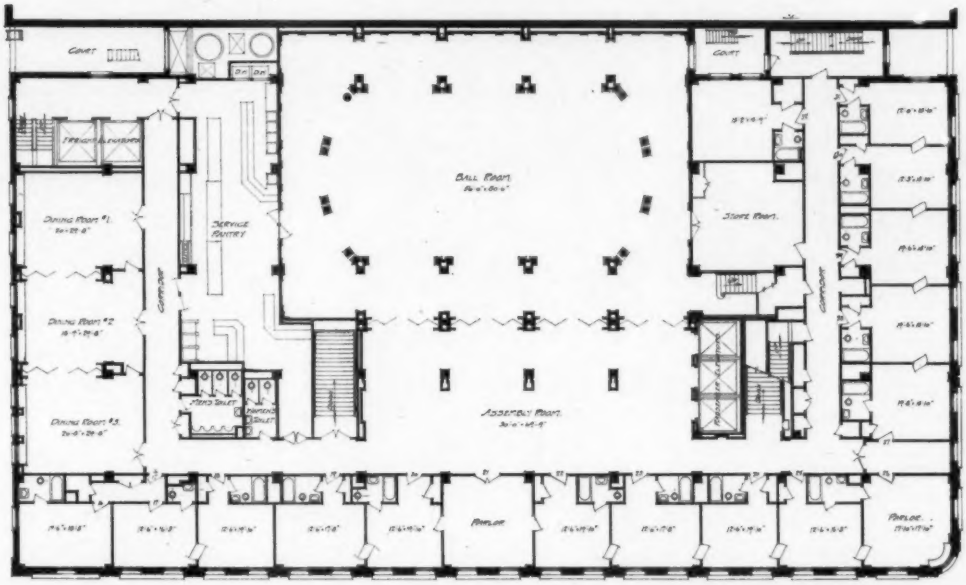


EXTERIOR DETAIL OF FIRST STORY

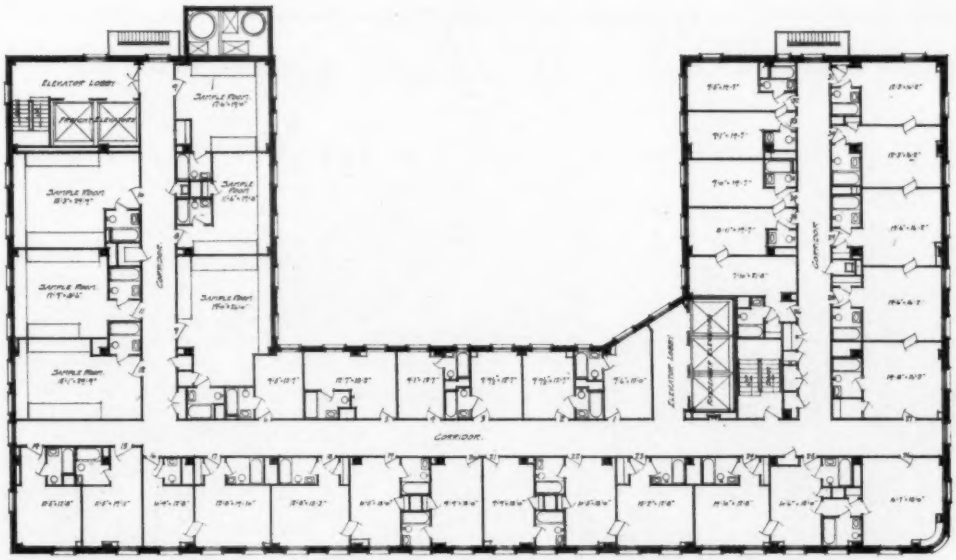
HOTEL DESHLER, COLUMBUS, OHIO

HOLABIRD & ROCHE, *ARCHITECTS*

XUM



SECOND FLOOR PLAN



PLANS OF THE FOURTH FLOOR AND ABOVE

HOTEL DESHLER, COLUMBUS, OHIO

HOLABIRD & ROCHE, *ARCHITECTS*

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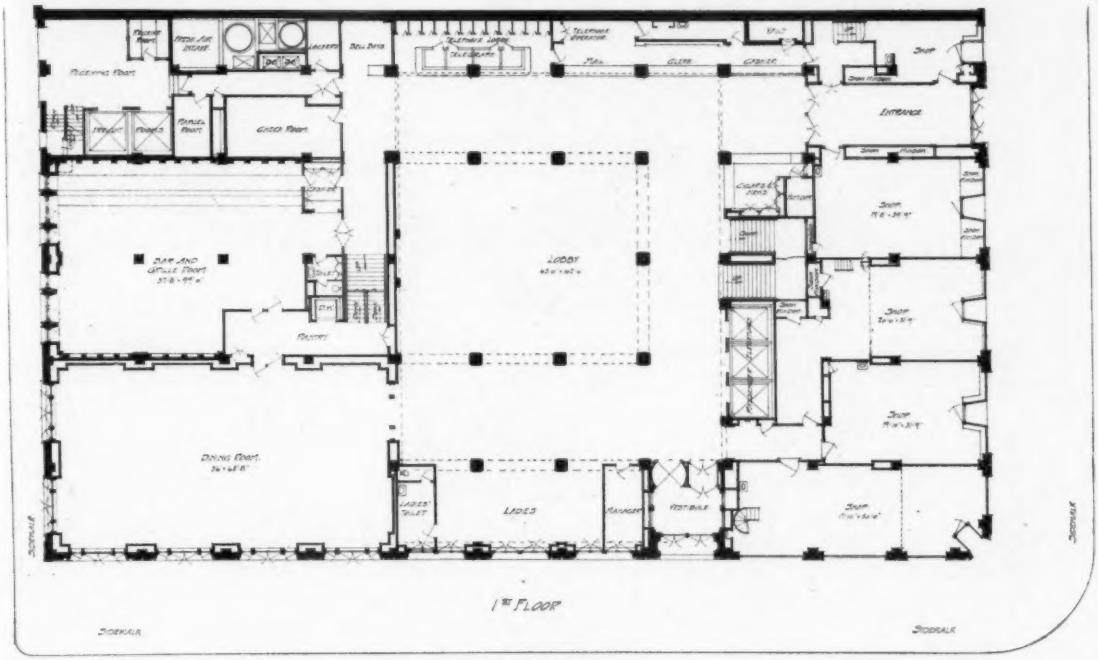
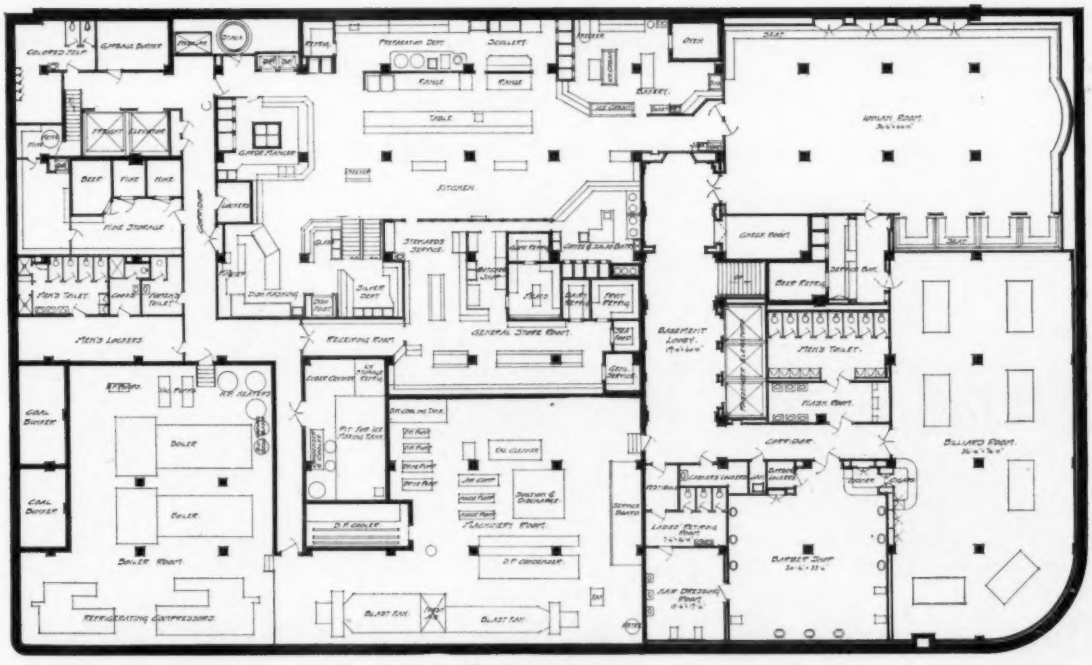


FIRST FLOOR PLAN



"THE DESHLER".

BASEMENT PLAN

HOTEL DESHLER, COLUMBUS, OHIO

HOLABIRD & ROCHE, *ARCHITECTS*

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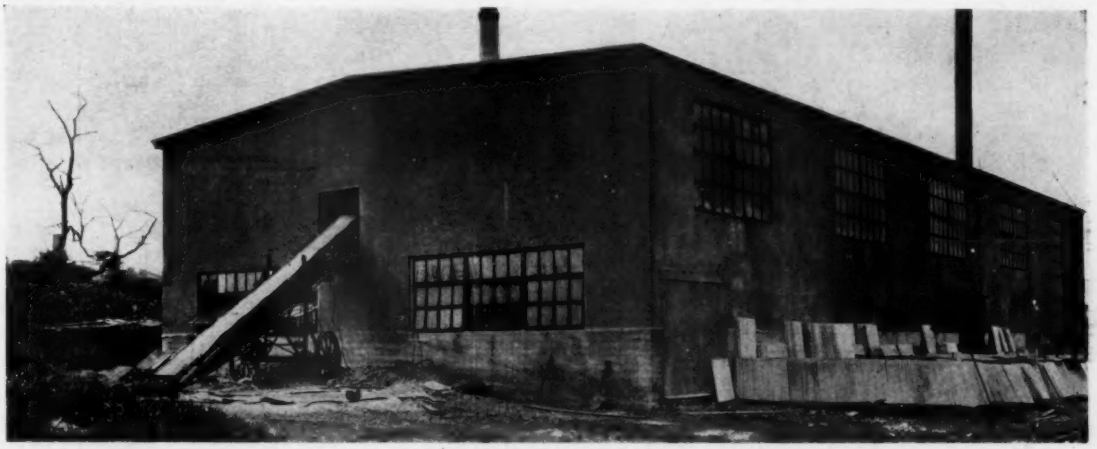
DEPARTMENT · OF · ARCHITECTURAL · ENGINEERING

New Material Used in Manufacturing Building at Newark, N. J.

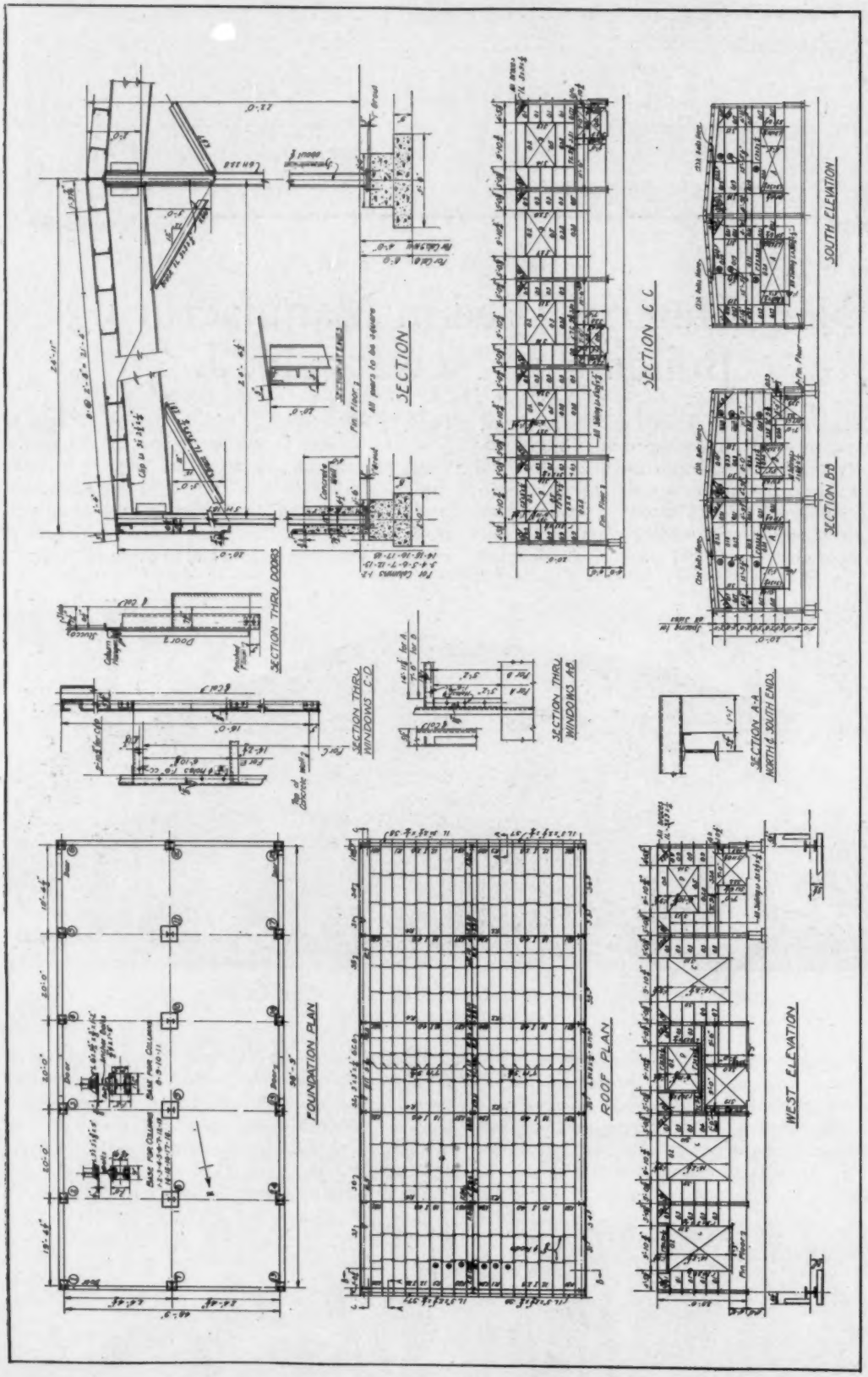
THE war was both directly and indirectly reponsible for the development of many new types of building construction. The fact that certain of these are only now making their appearance is but proof of the extensive experimental work carried on during preceding years, accelerated by the hope that a practical stage of development could be reached prior to the termination of hostilities, that thereby aid might be rendered to one or more of the agencies conducting the Government's vast building program. But if improved materials and methods of construction were essential to the solving of our war problems, they are doubly so now, when we are face to face with the complications of reconstruction, which must be brought to a successful end before we may even enjoy the fruits of peace and victory. The building industry suffered during the war more than any other, and now that private building operations are again possible, it becomes necessary to construct with greater efficiency than ever before and to avoid all waste.



NEW BUILDING, PORETE MANUFACTURING CO., NEWARK, N. J.
E. WALTER, *DESIGNING ENGINEER*

In past issues THE AMERICAN ARCHITECT has set forth various methods by which improved construction is possible. In this article a new material—a porous concrete—is described and methods of its application to building construction set forth and illustrated.

The laboratory research work has only recently



PLANS, ELEVATORS AND SECTIONS OF STRUCTURAL STEEL FRAMING, BUILDING FOR THE PORETE MANUFACTURING CO., NEWARK, N. J.

E. WALTER, *DESIGNING ENGINEER*

reached that point where the production of the material on a commercial basis has become possible. At present it is being produced in slabs 1 inch and 1⅛ inches thick, and 24 inches by 32 inches wide. The 1 inch slabs or boards are reinforced with light 2-inch mesh poultry wire netting and are used for wall and partition construction, while the 1⅛-inch slabs are reinforced with expanded metal and are used for roof construction. The material weighs approximately 50 pounds per cubic foot, slightly more than that of the commonly used grades of lumber, and the slabs can be easily handled.

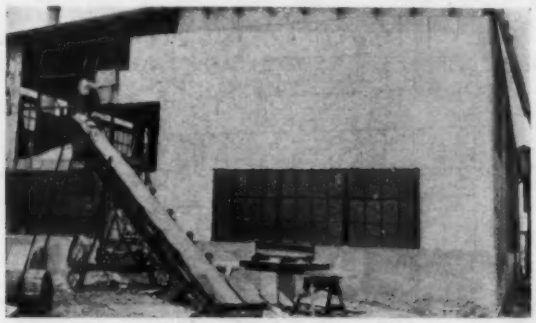
The porous character of the product is obtained by mixing with Portland cement and sand a quantity of mechanically produced pellets of a neutral wax-like material, about the size of "B B" shot. These pellets, while unaffected during the process of mixing and setting of the cement, are affected by heat, and melt or vaporize at a temperature below that which has any detrimental effect on the concrete. Thus by leaching out and evaporating the material composing the pellets, the spaces formerly occupied by them become voids and the structure of the resultant concrete very much resembles that of a rubber sponge. The material forming the pellets is recuperated and used over and over again. The process as well as the product is covered by U. S. Patents. A fine Rockaway Beach sand is used in the mix. The slabs are cast in metal forms, and while the upper surface of the finished slab is rough and porous, the under surface, due to contact with the form, is smooth. After the leaching process the slabs are stacked outdoors where they remain until shipment. An examination of a number of the earlier slabs, produced about a year ago, showed the material to be in good condition, and also considerably harder, as the setting process goes on, the same as with any Portland cement concrete. These had

INTERIOR VIEW OF PLANT SHOWING WALL AND ROOF CONSTRUCTION

XUM

not been protected in any way and thus had been exposed to the elements during the past winter.

A plant for the manufacture of this product, approximately 50 feet by 100 feet in area and one story (20 feet) high has just been completed at Newark, N. J. The manufacturers have employed this material wherever possible in the construction

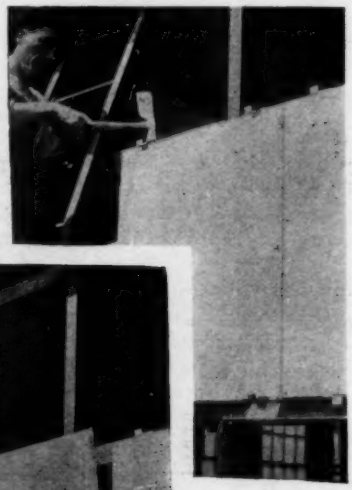


CONSTRUCTING AN END WALL OF POROUS CONCRETE SLABS

of this building. Thus it has been used for all side walls, roof and interior partition construction as well as for the doors. Since this plant is the first, and so far as the editors know, the only structure so constructed, it is here illustrated in considerable detail.

All footings are of normal concrete, carried 4 feet below grade. A concrete wall, 12 inches thick and extending 4 feet above grade, has been placed around the entire exterior, and this feature seems to be desirable, since it acts as a guard against damage by motor trucks, etc. The entire framework of the structure is of steel. The exterior columns are 5-inch H section and extend from 3 inches below grade to 20 feet above. The interior columns, forming a row in the center, are of 6-inch H section, and approximately 21 feet high. All columns are spaced 20 feet on centers parallel to the long axis of the building. The roof girders are 18-inch I beams set on a slight pitch, and braced to the columns by angle knee braces. The roof purlins are 7-inch channels 2 feet, 8 inches on centers, with lower flanges resting on and bolted to the girders. It would have been possible to have constructed a considerable lighter steel roof structure by using I beams instead of channels as roof beams, set farther apart and light angle iron purlins at 32-inch centers to carry the slabs. However, the owners preferred the heavier construction to simplify the structure. Horizontal angles, spaced 2 feet, 8 inches apart are connected to the outside flanges of the wall columns. All door and window openings are framed with angles and channels. The entire steel framework is well braced. A good conception of the construction will be obtained from an inspection of the photograph of the interior.

After the erection of the steel framework, the walls were covered with the porous concrete slabs, set with the long dimension vertical. The slabs are held in place by specially constructed, heavily galvanized metal clips. Several of these clips, as well as the method of holding the wall slabs in place may be clearly seen in the illustration below. Apparently the only tools used by the workman setting these were a small hatchet and a pair of wire cutters. No scaffolding was required. The windows are of the solid steel sash type, now commonly employed in



"CLOSE UP" OF METHOD OF ATTACHING SLABS TO STEELWORK

NOTE TYPE OF STEEL CLIP USED TO HOLD SLABS IN PLACE

industrial buildings, and were connected to the steel framework in the usual manner.

The roof slabs were set so as to rest on the top flanges of the channels, and metal clips used to hold them in place. These clips are formed to hook over the edge of the channel flanges and have two projection lugs, one of which extends over the slab on one side and the other one over the adjoining slab. After the roof slabs were placed, a very thin surface of cement grout about 1/16 inch thick was

ROOF CONSTRUCTION—STEEL CHANNELS AND POROUS SLABS

floated over the slabs, filling the joints and smoothing the surface. Over this a build-up tar, felt and slag roof surface was applied.

Tests made on a number of the roof slabs with the surface finish on top gave an ultimate strength of approximately 350 pounds per square foot. The expanded metal reinforcement is placed toward the underside, but not close enough to the surface to be exposed.

The walls on three sides have been given two coats of Portland cement stucco applied with a stucco machine and present a good appearance. No cracks are noticeable to date. The fourth wall has been partly covered with one coat of cement stucco. The remaining sections are used for conducting various exposure tests.

The interior partitions around the office section, as well as two doors shown at the rear of the photograph of the interior, are also constructed of Porete slabs on a metail framework, and plastered.

These slabs can be nailed to wood studs without difficulty, the nails apparently not in any way injuring the material. A special wire clip is used under the nail heads which acts as a washer. A panel constructed of wood studs, similar to the wall of a frame building, has been erected in the open for experimental purposes. This has been covered by the slabs and one heavy coat of stucco. So far as could be determined, one single heavy coat of stucco appears to be all that is necessary to make a satisfactory siding. A dash finish would, of course, add to the attractiveness of the appearance.

PLACING FELT, TAR AND SLAG ROOF OVER CONCRETE SLABS

CLOSE UP VIEW

Showing method of clipping roof slabs to steel channels.

It would appear that this material has a wide field, since it combines most of the enduring qualities of Portland cement concrete with very light weight, and in addition possesses excellent insulating qualities on account of its air cell structure. Not only can it be used for the exterior of frame buildings such as dwellings, which are to be stuccoed, but also for small and large garages and industrial buildings

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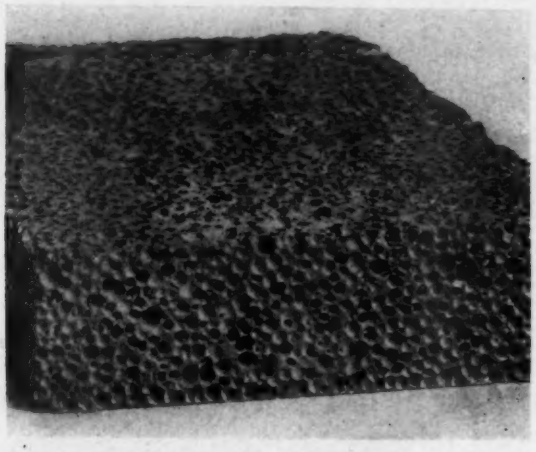

A SPECIMEN OF THE NEW PRODUCT SHOWN FULL SIZE

where a smooth cement finish for the inside walls is obtained. For partitions, false ceilings and as a furring material for brick and concrete walls, as well as concrete roofs, it promises excellent results. As a roof-deck it combines with its fire resisting qualities, very light weight and good insulation.

The "board" idea has come into quite general use insofar as interiors for moderate sized residential buildings are concerned, and it is quite conceivable that for exterior work the same principle might, in certain classes of buildings, be found advantageous. Of course, as relating to the product here described, some type of weatherproof exterior coating is essential, since the material itself is not proof against the elements. However considerable labor on the job may be eliminated.

The construction so far as this building and similar types are concerned has received the approval of the building department of Newark, N. J.

Report on Trip to Princeton, Yale and Harvard Universities and the College of City of New York, for the Purpose of Inspecting the Stadia at Those Institutions

By Howard Dwight Smith

Part V

OF the architectural lessons to be learned at Harvard, the most important one, that of dignity and scale has already been mentioned. But there are some others which should be noted in passing. The Stadium has been built with three substantial steps around it, giving the effect of a platform, upon which the lower arcade rests. This avoids the stilted appearance of the supporting piers which is apparent at Princeton, for instance. The interest and character which the markings of the wood forms have given to the entire structure is perhaps a touch which the designers and builders had not fully contemplated or originally appreciated. In fact, the changing of the entire outer surface of the exterior wall by "bush hammering" or picking in order to remove all evidence of the wood forms was contemplated and actually carried out on all the piers of the lower arcade. This proved to be rather an expensive operation and it was not carried further, and it was proposed that the surface be covered over by vines. The growing of the vines has been very successful, and during the summer and fall the first two stories of the exterior wall, from tower to tower, is practically a solid mass of green.

These vines cover up the form marks on the surface of the wall, even though these form marks do not necessarily mar the architectural character of the structure. In fact, the form marks still showing on the faces of the towers suggest the great possibilities in their use as a part of the design. The markings show that the form boards were for the most part placed vertically in short lengths of approximately 3 feet, each section separated by a horizontal form board eight or nine inches in width. This gives the interesting effect of alternating wide and narrow structural courses, and suggests other interesting ways in which the actual structural accessories in the use of reinforced concrete may be taken advantage of by the designer.

The structural lessons to be learned at the Harvard Stadium are quite as interesting as the architectural ones. Unlike the Yale Bowl, the Palmer Stadium at Princeton, or the Lewisohn Stadium at C. C. N. Y. the Stadium on Soldiers' Field is not entirely a reinforced concrete structure. The piers of the superimposed arcades of the exterior wall are 3 feet thick and are of sufficient cross section to carry their loads as masonry alone. The interior vertical supports and girders are of reinforced concrete, the entire seating portion is made up of seats

precast in sections approximately 8 feet long and set in place on supporting rafters of steel. The upper solid section of the exterior wall is of reinforced concrete. The double arcade portion of the exterior wall is provided with numerous joints for expansion and contraction, and it is evident from the form markings which show over the arches of both stories, that these portions of the wall have been poured in comparatively small integral sections. As in the solid seat blocks at Yale, this gives the advantages of stone masonry construction because the expansion and contraction of each small piece is taken up mostly at the adjoining joints.

The upper wall back of the colonnade is built up with continuous expansion joints which have frankly been left uncovered throughout. They extend up through cornices and parapet, across the roof over the upper promenade and through the cornices and parapet over the colonnade itself. There is one joint to each section of seats, thirty-eight in all, which brings one over every third column of the colonnade. In some cases where a thin outside cement coating has been plastered over the parapet joint over this colonnade it has broken open somewhat irregularly, giving sufficient proof that even in the most insignificant places where the logical expansion joint is ignored it is detrimental to final results.

The problem of expansion and contraction in the heavy girders which support the seat structure is successfully taken care of by resting each girder separately on two supports as contrasted to a system of the continuous girder. Each long, reinforced concrete girder rests upon two reinforced concrete posts. The supports under ends of adjoining girders are placed some four feet apart, each girder cantilevering over its support, making the actual girder joint midway between the supports. The stairs up to the lower row of "eyes" or portals go between these pairs of concrete posts.

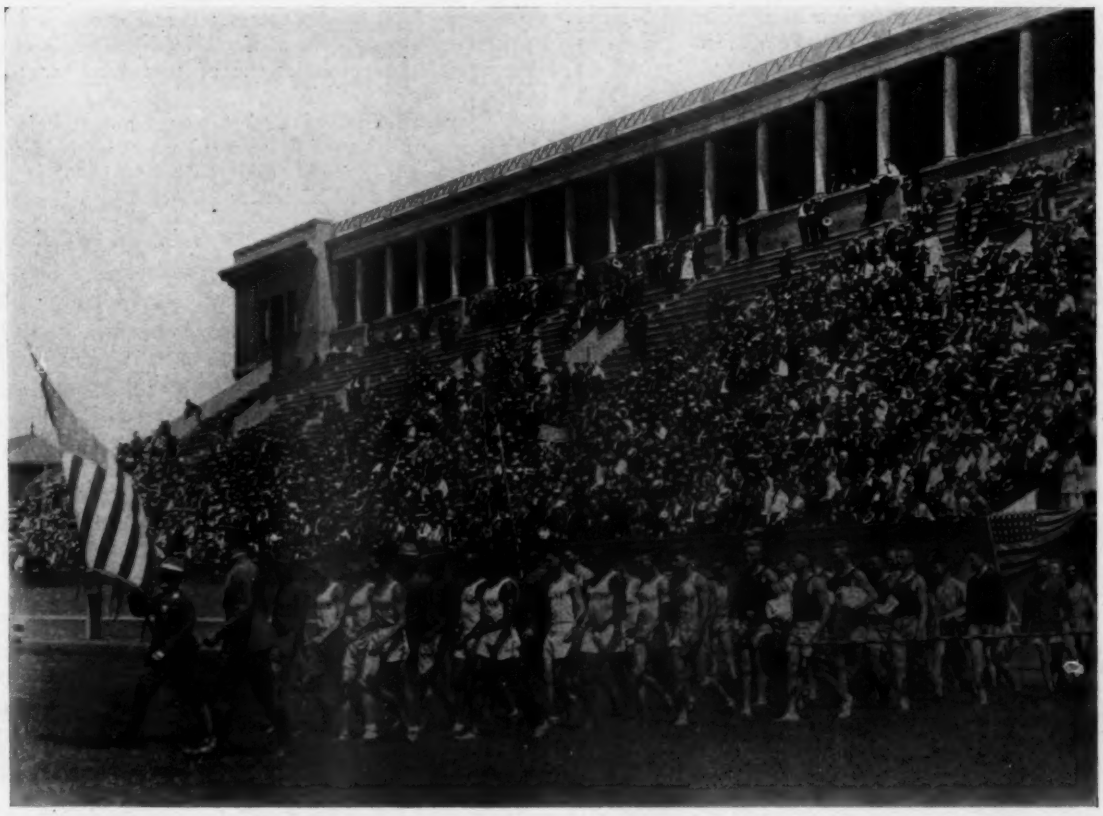

Photo International

OLYMPIC ATHLETES AT HARVARD STADIUM PRIQR TO THEIR DEPARTURE ABROAD

These heavy girders support a series of steel rafters upon which there are placed clips or seat

angles, which form horizontal points of support for the seats themselves. As has been mentioned above, these seats have been precast. They were built up in forms in an area off to one side of the Stadium site much in the same way that concrete blocks are made and then transferred to the structure and set in place. Each cast seat is about 8 feet long. They have been set in place with a slight joint between each two. In general these joints are not pointed up. This allows free and independent movement in each small unit. The outstanding feature of the Harvard Stadium from a structural point of view is its structural integrity after seventeen years of use and exposure. There is no evidence of disintegration in the seat portion nor of spalling or cracking due to pressure. In the entire length of exterior wall there is one irregular crack apparent and that is in section 9, on the north side, through the haunches of arch 15 in both stories.

Aside from this there is no evidence of disintegration apparent, although the ground keeper says he has noticed some slight tendency within the past year or so to a slight thrust on the walls at the tips of the Stadium, adjoining the tower. This may be the result of cumulative expansion, because of the fact that the joints between the seats are not filled with plastic material. In cold weather, when these joints are widest open, some of them may fill with solid matter, which will make the joint ineffective during the hot weather of ensuing seasons.

The openness of the joints between each cast seat unit means, of course, that the space beneath the seats is not weatherproofed and it cannot be used to any advantage as shelter in wet weather. This could largely be overcome by some simple provision such as a series of gutters or by the use of plastic material in the joints.

The steel work used to support the cast seat units is all exposed and requires attention periodically for cleaning and painting. Attention has been directed to the fact that it has not been repainted in eight years, and for the most part it is still in fair condition. It is true, however, that just those portions which need paint protection most, that is to say the horizontal clips which hold the case seat units, are the least accessible for repair and protection.

The "healthy" gray color of all of the concrete and cement work about the entire Stadium, bespeaks the character of the materials and workmanship used in its construction. The opinion is ventured that no small measure of the structural success of the Stadium may be due to the fact that those responsible for its erection felt they were working with a comparatively new material and that most extraordinary provisions were made and precautions taken to execute the work as nearly as possible with laboratory exactitude. Quality surely has not been sacrificed to speed or false economy, and the results speak for themselves.

The care of the structure now is in the hands of the efficient ground keeper, who witnessed its entire erection and who knows it as well as or better than any one else. This gentleman's first interest is in maintaining well turfed playing fields and in building "fast" cinder tracks, but his keen interest in the maintenance of the structure itself, is, of course, of great value to its owners.

The inspection of the Harvard plant convinces one of the sufficiency of concrete if used intelligently and maintained properly. It makes one feel that what has been done at Cambridge can be done elsewhere if only the lessons of seventeen years can be properly heeded.

For complete discussion of structural and technical details refer to the Journal of the Association of Engineering Societies, June, 1904, Vol. XXXII.

More Data on Structural Slate

THE Structural Service Bureau of Philadelphia has recently issued Chapter 2 of a series on structural slate, containing a basic specification for structural slate work, as well as information on color, grading, costs and constructional data.

As stated in the announcement by the staff of the bureau, its activities are devoted to creating a greater, safer and more efficient use of building materials, equipment and devices through a better understanding of their nature, manufacture and utilization. It acts as a point of contact between the profession of architecture and industries allied with it. It embodies, to the fullest extent possible, the viewpoints of the designers of buildings and specifiers of their construction, of the producers of raw and finished structural materials, and of the ultimate consumer, the owner.

The co-operation of the architectural profession is solicited by the Structural Service Bureau in advising what the industries can do to improve their product for the architect's use, to increase its effectiveness in appearance, to eleminate unnecessary and infrequently used sizes, shapes, patterns, colors and finishes, to cut down waste in material and effort, to increase production, reduce cost, minimize calculations and details and to standardize procedure.

Incidentally, all will be playing an important part in reducing the cost of building and in preventing an enormous economic loss to the purveyors of building materials if means may be found to reduce the unwarranted amount of money expended upon that class of literature which flows through an architect's office without achieving its purpose.

Current News

Happenings and Comments in the Field of Architecture and the Allied Arts

Action of the Oregon Chapter A.I.A.

A resolution disapproving of the employment of manufacturers' engineers in designing structural steel and mechanical work, unless said engineers are employed on the same basis as independent engineers and paid for their services, has been adopted by the Oregon Chapter of the American Institute of Architects.

This chapter has also appointed a committee to meet with a committee of contractors for the purpose of discussing the recently organized association of builders, members of which are making a charge for figuring plans.

Building Associations Grow

Assets of the building and loan associations of the United States have passed the $2,000,000,000 mark, H. F. Cellarius, of Cincinnati, secretary of the United States League of Local Building and Loan Associations announced at the twenty-eighth annual convention in Chicago.

Building and loan associations in the country total 7,788, his report showed, with a membership of 4,289,326, and assets of $2,126,620,390. The gain during the last year was $228,276,044, or 12 per cent.

Pennsylvania led in the increase recorded, with 110,748 new members, and $45,797,507 addition to assets. New Jersey, Ohio and Massachusetts following in the order named.

In spite of the increase, the report says, there is a shortage of resources in most communities with the result that home building has been retarded.

World War Museum

Modern warfare as an art and a science is revealed to the most minute detail of a soldier's equipment in an exhibition at the National Museum that has just been completed in Washington. The object of the collection is "to perpetuate the part taken by the United States in the World War as a memorial and a supplement to the written history of the war. The exhibition will be of value for research work, it was pointed out, in that the military, naval and aerial activities of the Allies as well as those of the enemy will be shown. A phase of modern warfare disregarded in the past will be perpetuated in the war posters and other "pictorial and printed matter" which carried the war into every household.

Camouflage and equipment invented during the course of the conflict to meet the impediments of trench warfare, poison gas and submarines, will form a part of the collection. A map corrected to November 11, 1918, with its accessories, as staff at Chaumont, France, and classified as a "combined order of battle used by General Pershing and his map" will form useful data for military men in their study of new rules to an old game. The war collections were gathered by special arrangement with the War and Navy Departments and their accuracy and completeness are atributed to the co-operation of Major-General Roberts, who assembled the collection of German war trophies; Colonel C. W. Weeks, Chief of the Historical Branch of the Army War College, and Captain J. J. Hittinger, of the Quartermaster Corps, who supervised installation of the gifts to the museum.

The Smoke Evil an Architectural Problem

The effect of smoke on the health, wealth and happiness of the people of Manchester, in England, has been a subject of inquiry in Manchester for eight years, and the injurious effects have been summarized in a recent report by the air pollution advisory board of the city council.

The report is no less applicable to cities everywhere that smoke is a nuisance, and is here quoted as a terse analysis of a common condition.

The introduction to the report states that "it would be difficult to cite any one cause so productive of loss, both moral, mental and material, as the smoke evil."

The report shows that not only is black smoke itself a waste, but it causes a further waste. "It levies what may be called a black smoke tax, and everybody living in Manchester pays it. It is levied on buildings, merchandise, gardens, furniture, curtains, on paint and wallpaper, on clothes, and last, but not least, on personal health, and even, we might say, on personal appearance."

It is estimated that the black smoke tax in Manchester is not less than £750,000 ($3,750,000) a year

Architects have estimated, some that as much as

fifty per cent. and others that from fifteen to twenty per cent. would be saved on the upkeep and maintenance of buildings if the atmosphere were clean. Only house painters gain. Manchester is described as "the house painters' paradise."

Theatres Built Instead of Houses

Millions are being spent for new playhouses to insure New Yorkers ample amusement this winter, although flat builders cannot get loans for housing the masses of the metropolitan district.

This was revealed when a survey was made of the rush of theatre construction which disclosed that $25,000,000 worth of new amusement houses were under way.

Many of the new playhouses are wiping out old flats and dwellings urgently needed for homes, social welfare investigators declare, and as a result the housing shortage is becoming more acute.

The theatre builders assert that the immense sums pouring into places of amusement are justified, as the new construction guarantees them a profitable return on the investment.

Although there are 500 running theatres in the greater city and 650 in the entire metropolitan district eight new theatres, costing more than $12,000,000, are planned in the Long Acre-Times Square district, three in Greenwich Village, four large houses and a score of smaller theatres in the Bronx, three in Washington Heights and five in Brooklyn.

There now are 115 theatres operating in Brooklyn.

Gigantic Building Program Planned

Former Brigadier-General R. C. Marshall, Jr., since the Spanish-American War Chief of the Construction Division of the American Army and the man who had supervision over projects involving $800,000,000 for the Government in the World War, is in Detroit, as general manager of the Associated General Contractors, for a conference with the heads of that organization on plans involving the expenditure of some $4,000,000,000 during the ensuing year.

As Chief of the Construction Department of the American Armies, General Marshall was responsible for all building construction.

At a meeting of the national officials of the Associated General Contractors at the D. A. C. Tuesday afternoon, Mr. Marshall, as guest of honor, outlined the big program before the association for the ensuing year and the prospects of increasing responsibilities for the years to come. He declared a national issue should be made of the construction business, and a campaign instituted with both great political parties for its recognition.

The Federal Waterpower Bill

Doubtless, states *Improvement Bulletin*, the next few years will witness enormous strides in the development of the water power of the United States. This is made possible by the Federal Waterpower bill recently enacted into a law. There are commercially developable in the navigable streams of the United States from 20,000,000 to 30,000,000 horsepower of water power which has been heretofore wasting and the use of which would have saved the natural coal resources in the United States to the extent of one-half their yearly consumption.

Therefore it is that the restriction of the use of natural coal resources means conservation because it saves for the future that which has been unused, but in the case of water power resources it is different. Moreover, the non-use of water power resources is doubly and triply antagonistic to conservation, viewing conservation in its proper sense as meaning a prevention of waste. Development of a water power means saving from waste the energy which may be developed by such water power. Also, it means a diminution of the using up of coal resources. Therefore, such saving from waste is a double saving.

Playground Built in Tiers

The first municipal playground of Czecho-Slovakia, in Prague, occupies a high hill which is terraced off, supplying space at the top for tennis courts and ball grounds on a lower terrace, a pavilion, band stand and open-air theatre, on a still lower tier a running track and further down the children's grounds, with sand pile, wading pool and swings. In this latter section there are pavilions where the mothers can sit and rest or sew as they watch their children. This first playground for children is a co-operative effort of the Czech government and the American Y. M. C. A. and Y. W. C. A. which will eventually be entirely under government management. At present the city has supplied the place, the Y. M. C. A. is paying for the equipment and the Y. W. C. A. has given the leadership. Charts for smaller play places for other parts of the city are being prepared.

Rent Increases in the Fall

"The people are becoming educated to the fact that they must pay more rent," says the Chicago Daily News. "It is impossible to set an absolute and arbitrary per cent. that holders of October leases can expect to pay," this paper quotes A. W. Stanmeyer, president of the Cook County Real Estate Board. "I should say, however, that if a

man received no increase in rent in October, 1919, he would have no justifiable protest if he received a 40 per cent. increase this year. That is, if his apartment has been renting at its full value before. Much depends on the neighborhood in which the apartment is, and much on the landlord himself.

"I think the peak of prices has been reached and hope that this October will see the last of rent increases. Few complaints have reached us thus far, thanks to the campaign last spring educating the public to the reasons for increased rents."

"Fifty per cent. of the tenants who have received sixty day notices have already signed new leases," said Adolph Krammer, president of the Chicago Real Estate Board, "and the others are coming in every day. We don't get one complaint out of a hundred cases. And this despite the fact that there are fewer flats now than there were last spring."

Mr. Krammer said he could not set a per centage of increase that the tenant might expect to pay. Too many things had to be taken into consideration. Rents would remain high, he said, just as long as money was "tight" and there was an absence of building. As soon as new apartment buildings are erected, rents would start on the decline.

The Brotherhood of Art and Commerce

A Kansas City newspaper sees the Art Institute as a commercial proposition. "Simply from the business standpoint," it says, "the development of a fine art institute in this city, such as is now in prospect, is an important piece of news.

"A great art institute is not merely a school that will attract here hundreds and thousands of students. It is an organization that can and will be made to promote an interest in art throughout the city. As the school becomes more important it will attract more and more attention to the subject. It will increase the city's cultural advantages and will attract here the most desirable sort of population from the surrounding territory.

"Still, bearing in mind the business standpoint, which has to be emphasized in a case like this, the sort of families that will be drawn here will include people of means and taste. They will be an addition to the residence district in the sort of homes they will build.

"Purely as a commercial proposition there is no enterprise that should appeal more to business men as a dividend payer for the town than the Art Institute which is entering its new era of expansion and success."

Construction in England

The Government subsidy of 250 per house can be secured also for temporary wooden structures provided they cover not less than 70 square feet—it is reported by the U. S. Consul at London, England. Much English timber is being used for the housing schemes but they are not yet sufficiently advanced for heavy quantities to be required in construction.

It was stated in Parliament in the early summer by the Minister of Health that the number of disputes in the building trade had delayed construction of houses. Present rates of wages, he said, varied in different districts from the equivalent of 30 cents to 57 cents per hour—the corresponding range in 1914 being 14 to 23 cents per hour.

The general expectation is that a period of slow recovery will follow almost immediately on the present stagnation.

Housing Brevities

In the development of plans of the National Administrative Council of Uruguay for the construction of houses for laborers and government employes, the Architectural Board of the Ministry of Public Works is building houses in a suburb of Montevideo known as "La Teja." This project, on which $206,000 will be spent is for experimental purposes.

The city building inspector announces that there is an increase in building permits for the first seven months of this year as compared with the same period of 1919 amounting to $825,510. And that $2,414,313 worth of building has been done this year as compared with the first seven months of 1919.

According to the report of the U. S. Forest Service, the building permits issued in 21 cities of various sizes, widely distributed over the country, show that, in values, housing construction formed 36 per cent. of all buildings in 1913, 21 per cent. in 1918 and 27 per cent. in 1919. The amount of housing construction in 1913 was exceeded in 1918 in only two of the 21 cities and in 1919 in only six, in spite of the "build-a-home" campaign. The falling off in house construction, continues the Forest Service report, generally appears to have been particularly marked since the latter part of 1919, when the greatest upward movement of lumber prices began.

The Philadelphia Housing Association has proposed to the constitutional revision commission an amendment to provide: when it is in the public interest the commonwealth or a municipality may take, improve and lease or sell land and the im-

provements thereon, subject to such limitations as the General Assembly may prescribe, and that the state may borrow and loan "for homestead purposes" an amount not in excess of $25,000,000. This is the same amount it may borrow for forestry purposes. For highways it may borrow $150,000,000, according to the revised constitution.

The New York Housing Corporation has secured options on land in the Laurel Hill section of Queens and proposes to build there some thousand six-family brick houses, to be rented at $30 a month for each apartment, provided it can secure the co-operation of the Board of Estimate and the Legislature. The help it asks for is the relief of these dwellings from taxation for a term of six years.

That is in line with the plans of Senator Lockwood, who wants all building mortgages exempted from the State income tax and who has argued for a like exemption of small building investments from the Federal income tax. It is, however, suggested by the Brooklyn *Eagle* that landlords who pay heavy taxes and have advances in their rentals limited by law would not exactly welcome competition with new apartments which pay no taxes at all.

A Correction

Owing to a typographical error, the chapel at Nahant, Mass., illustrated in our issue of August 18, was incorrectly attributed to Ralph Adams Craw. As our readers have undoubtedly inferred, this chapel was designed by Mr. Ralph Adams Cram, of Boston.

Personals

David J. Varon, consulting architect, has moved his offices from 309 Broadway to 108 East 31st street, New York.

Morris & Erskine, architects, are now to be found at their new office location, 1716 Cherry street, Philadelphia, Pa

C. H. Crosby has opened offices in Halifax, P. O. Box 923, for architectural practice. Catalogues and samples desired, particularly those with reference to reinforcing and fireproofing materials.

C. Howard Crane, Elmer George Kiehler, and Cyril E. Schley have opened an office at 127 N. Dearborn St., Chicago, in charge of H. Kenneth Frangheim.

George Meisner, architect, of New London, Connecticut, has moved his office from 56 State street to 19 Grand street of that city.

News From Various Sources

The Ohio Seamless Tube Co. of Shelby, Ohio, has increased its capital stock by $12,000,000 to provide funds for further extension.

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The Ford Roofing Products Co. has moved its offices from St. Louis to Chicago and will probably, within a year, build a million dollar plant in that city, but is waiting for building conditions to improve.

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Brigadier-General R. C. Marshall, Jr., formerly Chief of the Construction Division of the Army, has been appointed general manager of the Associated General Contractors.

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Bayonne, New Jersey, has passed an ordinance providing a building code for that city.

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Elihu Root, former American Secretary of State, has formally presented to the British people the St. Gaudens statue of Lincoln, in Canning Square, as a gift from America, and the statue has been unveiled. Premier Lloyd George abandoned pressing official business to deliver the speech of acceptance.

The presentation was made in the presence of a distinguished audience in the central hall of Westminster, with Viscount Bryce, former British Ambassador to the United States, presiding. The event was widely heralded in the British press as further cementing Anglo-American friendship.

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A City Planning Commission of 51 men and women has been created by the City Council of Los Angeles.

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Schonborn Palace, Prague, with its grounds, has been purchased for the American Legation. The price paid is said to have been $50,000.

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The Lighthouse Commission is willing to co-operate with the movement to continue the old Barnegat Light, providing funds can be found to build jetties on the west side where the current is eating into the foundation.

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A memorial fountain and gateway has been designed for the University of Texas by Pompeo Coppini of Chicago.

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It leaks out of the Tax Department of New York City that assessments on real estate will be increased by approximately two billion dollars.

Weekly Review of the Construction Field

With Reports of Special Correspondents in Prominent Regional Centers

From all sections of the country come reports of building stagnation as indicated by the building permits. In Dubuque the drop is 82 per cent as compared with the same period of last year. In Roanoke, Va,, it is 60 per cent., though somewhat better showing than of the previous twelve month. In Indianapolis the drop is 30 per cent.

It should be bourne in mind, however, that July of last year was the month which showed the greatest impetus of building while in 1920 the program started early in the spring; since May the permits have been falling of the necessity to catch up in the production of finished buildings.

The difficuly of securing materials is also general througout the country. It is a situation brought about not only by the demand but also by the difficulties of transportation, and it is a hardship not only for the builders but for the manufacturers whose plants are being choked with finished product, and in many cases compelled to close; and this latter phase of the situation eats into the future supply.

There is now becoming evident a shift of sentiment.

A shift of sentiment in favor of building maerial tonnage on the part of the railroad executives is significant and encouraging.

The prices of building materials, in spite of this apparent slackening in building projects, are holding firm and in many cases are moving up. Cement in New York (yard base) is $5.10, and the lately issued advances in price of coal to cement manufacturers will move it still higher. The increase in expense of fuel for manufacture falls upon almost every other item, and eventually must be felt.

So far as supply is concerned there is hardly an item that is easy to procure.

The hearings of the Senate Committee on Production and Reconstruction which opened in New York were confined during the first week to the discussion of financial expedients. Walter Stabler, comptroller of the Metropolitan Life Insurance Co., said in reply to Senator Calder's statement that Congress was adverse to tax exemptions, that the seriousness of the housing situation demanded such a remedy. Frank Mann, Tenement Commissioner of New York, urged exemption of mortgages from the income tax, financial aid to builders by the State and the use of the city's sinking fund for the construction of houses. He said that $60,000,000 would be required in New York for the construction of sufficient apartments to alleviate the shortage. On the day following, Otto Kahn, while objecting in theory to the placing of government moneys to such a use, agreed in theory with its present necessity.

This committee on reconstruction has placed argument with the Interstate Commerce Commission against the application of the advance in railroad rates upon building materials. The statement was simple and compelling. At the present time, it reads, the rates on sand, brick and similar construction materials are comparatively high in consequence of the increase in rates allowed to the carriers during the war, at which time we are told the rates on building materials were advanced some 50 per cent. while other commodities sustained an advance of 25 per cent. Indeed these rates established during the war were part of a system of embargoing the movement of materials not necessary for the presecution of the war. If the rates upon basic materials are now further increased by 40 per cent. or to any very material degree, the transportaion charges will inevitably seriously limit the movement of building materials and the amount of construction work which can be carried and covered by rentals sufficiently low to meet the housing problems.

One of the primary causes of the special session of the New York State Legislature is to act "in the matter of housing facilities for our people."

The opinion seems to be quite general that the reason for the hesitancy of money is that investors believe by waiting to realize some saving in building costs. And it is also said that the public's activities against "profiteering landlords" which were not always discriminating have made investments in housing less attractive. Every owner who has seen the courts knows his situation. He is faced by a woman with an inevitable baby which cries. The case is clear—the landlord is a brute. He had better have stayed away.

In these circumstances money will not naturally flow into the construction for housing and State funds is the obvious alternative.

(By Special Correspondence to The American Architect.)

Chicago: The situation in the building construction field in Chicago grows more discouraging because of continual delays in obtaining materials. Jurisdictional strikes are reported on the increase rather than decrease. Everybody is looking forward to the time when a favorable outlok may be reported in construction, but it is not yet here.

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Of course, the financial situation has something to do with it. The banks are not advancing funds as in the past, as everyone knows. It is also generally known that the transportation situation is not normal yet. But aside from these two factors, there is a general feeling of uneasiness and nervousness reflected from events in Europe. That is psychological but everybody remembers that the world war broke out over night and the league of nations is not a reality yet.

Spending continues in the West. Retrenchments have not been along the lines as in the Eastern cities. Luxuries are still being indulged in. There is still, however, an active demand for residences and in the commercial field substantial concerns are finding it desirable to own the property they occupy. It has been a good many weeks since there have been so many transactions showing the purchase by firms of the property they occupy or of new sites for occupance.

The real pinch in Chicago just now, however, is the continued shortage of homes and the steady increases in rents. The rent problem is far from being solved.

The money market in Chicago changes little. Ordinary loans are from 7½ to 8 per cent.

Reports in the city on building operations here in July show a big slump, attributable to the high cost of materials and labor. Onlyy 253 building permits, involving a cost of $6,669,000, were issued in July, compared with 606 permits, involving $7,714,000 for July, 1919. This is the low record for July for the last ten years as to the number of permits issued and the third lowest in capital involved. Permits issued this year since January show a decrease of 1,562, as compared with the first seven months of last year. The value of buildings proposed this year is placed at $56,925,000.

(By Special Correspondence to The American Architect.)

Seattle: With prices remaining firm in most building products, supplies in many instances are becoming shorter. Considerable repair work is progressing throughout the district and this activity is moving many materials. It is the general concensus of opinion that the volume of building, while not increasing, is holding up in good shape. There is a considerable activity in residence construction.

Roofing and cement prices are firm and jobbers report that the demand for these materials has dropped off 30 per cent. There is no hard wall plaster obtainable here, a condition attributed to the car siutation and labor conditions in Nevada, Montana and Utah. This is directly affecting many small structures and particularly out of town and Alaskan trade. Jobbers are making every effort to supply Alaska with plaster owing to the intermittent boat schedules.

Paint dealers declare that paint prices will remain about the same for the next six months, although turpentine has decreased 15 cents a gallon and linseed about 5 cents a gallon.

Bar steel is being received here in reasonable shipments, which average between sixty and ninety days. Conditions in sheet steel are different, as factories are giving no guarantee as to shipments. Orders are being filled as quickly as possible by factories, but allotments of this material have been toned down. Nails are also slow in shipment and arrivals are placed by jobbers at 40 per cent. of normal. Two and three kegs of a size are being handed out on orders in an attempt to keep buyers supplied.

New freight rates have had a tendency to increase the demand in many lines.

Anothr problem here is the supply of pipe and it is almost impossible to get this material owing to the government order reserving gondola cars for coal shipments. This order has resulted in some of the mills closing down and jobbers say the future outlook is "very uncertain." The price is firm, however, but an increase in quotations is feared if this condition continues for any length of time. Plumbing materials are also scarce.

July real estate transfers aggregated $1,015,620, which is a decrease f about $500,000 under July, 1919. Realty transfers for the first seven months of 1920 totaling $14,405,213—show an increase over the first seven months of 1919 which aggregated $12,025,758. Building permits for the first seven months of this year were $8,788,935, as compared with $12,025,758 for the same period of time in 1919.

Lumber prices show no change over the previous week, although the mills report a very firm market with prospects of slight price increases in the near future if inquiries for lumber stock materialize into orders.